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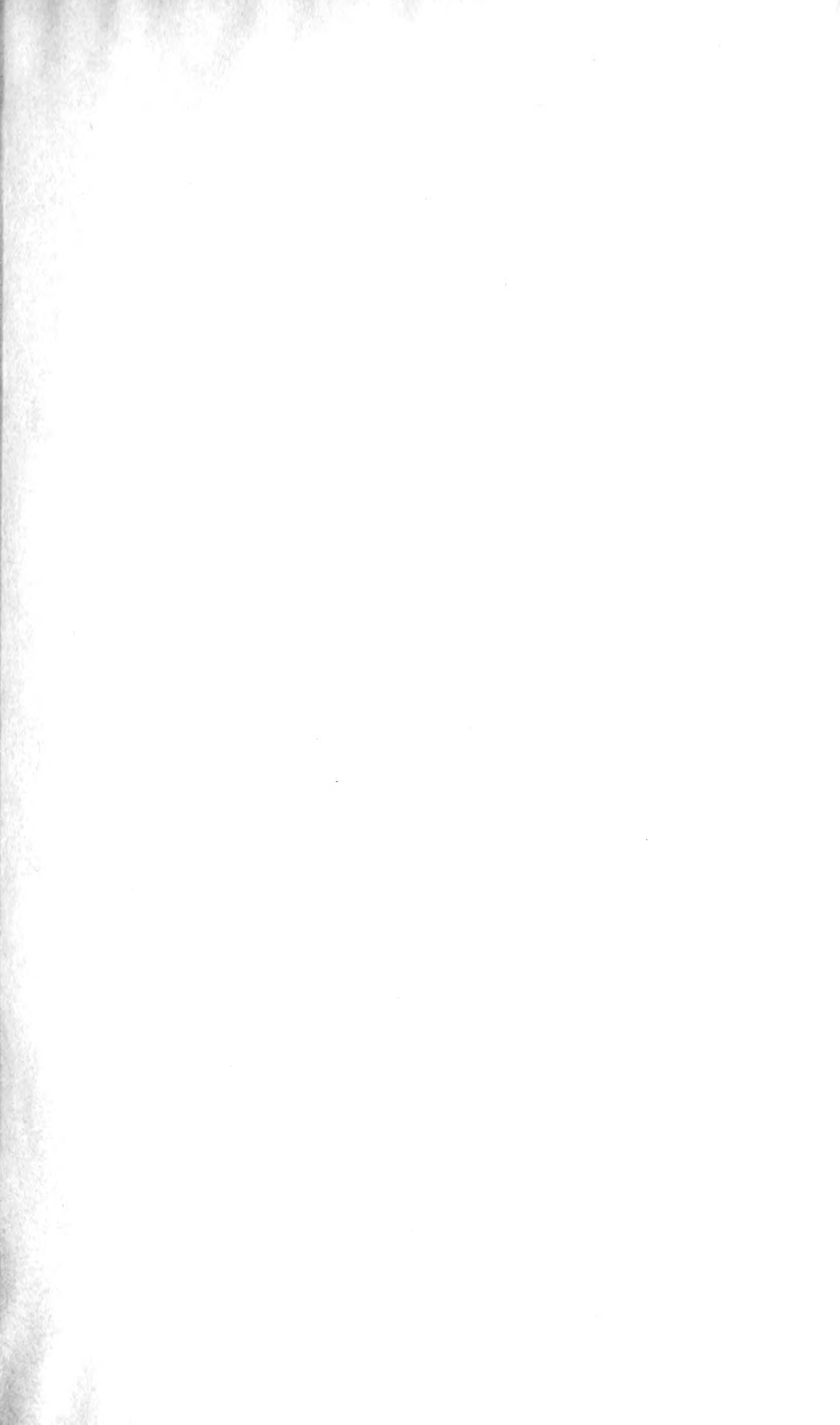
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THIRTY-THIRD

ANNUAL REPORT

OF THE

FISHERY BOARD FOR SCOTLAND

Being for the Year 1914.

Presented to Parliament by Command of His Majesty.



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The following is a list of some Parliamentary and Official Publications:—

FISHERY BOARD FOR SCOTLAND.

32ND ANNUAL REPORT, FOR THE YEAR 1913.

Part I.—General Statement, Means of Capture, Fish Landed, Scottish Fishermen at English and Irish Fishings, Fish Used Fresh, Fish Cured and Exported, Value of Fish-curing Yards and other Premises, By-products, Persons engaged in Scottish Fisheries, Boat-building, Herring-barrel Making, Herring Basket Branding, Marine Superintendence, Trawling in Prohibited Areas Prevention Act, 1909, Damage sustained by Boats or Gear of Fishermen, Prosecutions for Illegal Trawling, Casualties, Damage to Submarine Cables by Trawlers, Whaling. Part II.—Salmon Fisheries. Part III.—Scientific Investigations. Appendices:—Reports by the Inspectors of Sea Fisheries and District Fishery Officers; Harbour Improvement Schemes.

[Cd. 7399] of Session 1914. Price 1s. 7d., post free 1s. 11d.

BYELAWS, CLOSE SEASON ORDERS, &c., affecting the Sea and Salmon Fisheries of Scotland, in force on Sept. 30, 1913. (1913.) Price 9d., post free 10d.

SALMON FISHERIES, 1910.

I. Infrequency of Spawning in the Salmon, as shown by the Study of the Scales of Fish caught in Fresh Water.

II. Results of Salmon Marking—seventh paper.

III. A Study of Fish received as “Mended Male Kelts.”

(1911.) Price 6d., post free 7d.

SALMON FISHERIES, 1911.

I. Infrequency of Spawning in the Salmon. (1912.) Price 3d., post free 3½d.

II. Results of Salmon Marking—eighth paper. (1912.) Price 2d., post free 2½d.

SALMON FISHERIES, 1912.

I. Scales of Salmon of the River Add. *With 3 Plates.* (1913.) Price 4d., post free 4½d.

WITH THE SECRETARY'S COMPLIMENTS.

FISHERY BOARD FOR SCOTLAND,
EDINBURGH,

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THIRTY-THIRD ANNUAL REPORT.

TO THE RIGHT HONOURABLE
T. M'KINNON WOOD, M.P.,
His Majesty's Secretary for Scotland.

FISHERY BOARD FOR SCOTLAND,
EDINBURGH, 10th June 1915.

SIR,—

In terms of the Act 45 and 46 Vict., c. 78, we, the Fishery Board for Scotland, have the honour to present this, our Thirty-third Annual Report, being for the year 1914 :—

PART I.—GENERAL STATEMENT.

It is our duty to report that the year 1914 opened with every prospect of a successful fishing. The results of the previous seasons were encouraging, and more and more capital was being invested in all branches of the industry—particularly in replacing sailing and rowing boats by vessels mechanically propelled.

The summer herring fishing of Scotland was at its height; and participation in the East Anglian fishing was in the light of past seasons' experience looked forward to by Scottish fishermen and fishcurers with much hope and great preparation when suddenly there came the outbreak of war, which operated to the detriment of the industry in two ways, (1) by cutting off the chief market for cured herrings, which is almost exclusively continental Europe, and (2) by circumscribing the sea area within which fishing of any kind was permissible.

The seriousness of the situation was further increased by the stock of herrings cured during the year, but still unsold; as well as by the amount already exported, but lying unsold in German ports.

The following statement of facts must be read in the light of the foregoing remarks.

The sea fish of all kinds landed within the year amounted to 7,440,321 cwts., of the value, including shell fish valued at £65,029,

of £3,208,536. This is a decrease in value as compared with the preceding year of £789,181, and in quantity of 388,029 cwts.

This result was obtained by 8869 fishing vessels manned by crews amounting to 37,594.

We give below in summary form the means of capture employed and the resultant catch since 1898.

SUMMARY OF MEANS OF CAPTURE AND RESULTS.

Year.	Number of Vessels.	Value of Boats and Gear.	Total Catch.	
			Quantity.*	Value.
		£	Cwts.	£
1898	11,576	2,029,384	6,558,768	1,879,866
1899	11,245	2,383,776	5,145,076	2,189,933
1900	11,275	2,711,877	5,369,265	2,325,994
1901	11,201	3,001,301	6,385,170	2,238,310
1902	11,097	3,212,455	6,866,028	2,502,668
1903	11,008	3,448,168	6,518,808	2,401,287
1904	10,891	3,431,284	7,947,829	2,231,102
1905	10,581	3,304,695	7,856,310	2,649,148
1906	10,554	4,117,549	7,593,369	2,977,583
1907	10,365	4,857,816	9,018,153	3,149,127
1908	10,078	5,223,149	8,645,252	2,512,162
1909	9,889	5,291,533	7,423,185	2,889,107
1910	9,724	5,439,857	8,709,655	3,100,387
1911	9,543	5,628,087	8,511,974	3,127,929
1912	9,290	5,777,102	8,587,106	3,656,178
1913	8,991	6,035,952	7,828,350	3,997,717
1914	8,869	6,297,745	7,440,321	3,208,536

* Excluding shell-fish, which are sold partly by number (*e.g.*, oysters) and partly by weight (*e.g.*, mussels), and have no common measure except value.

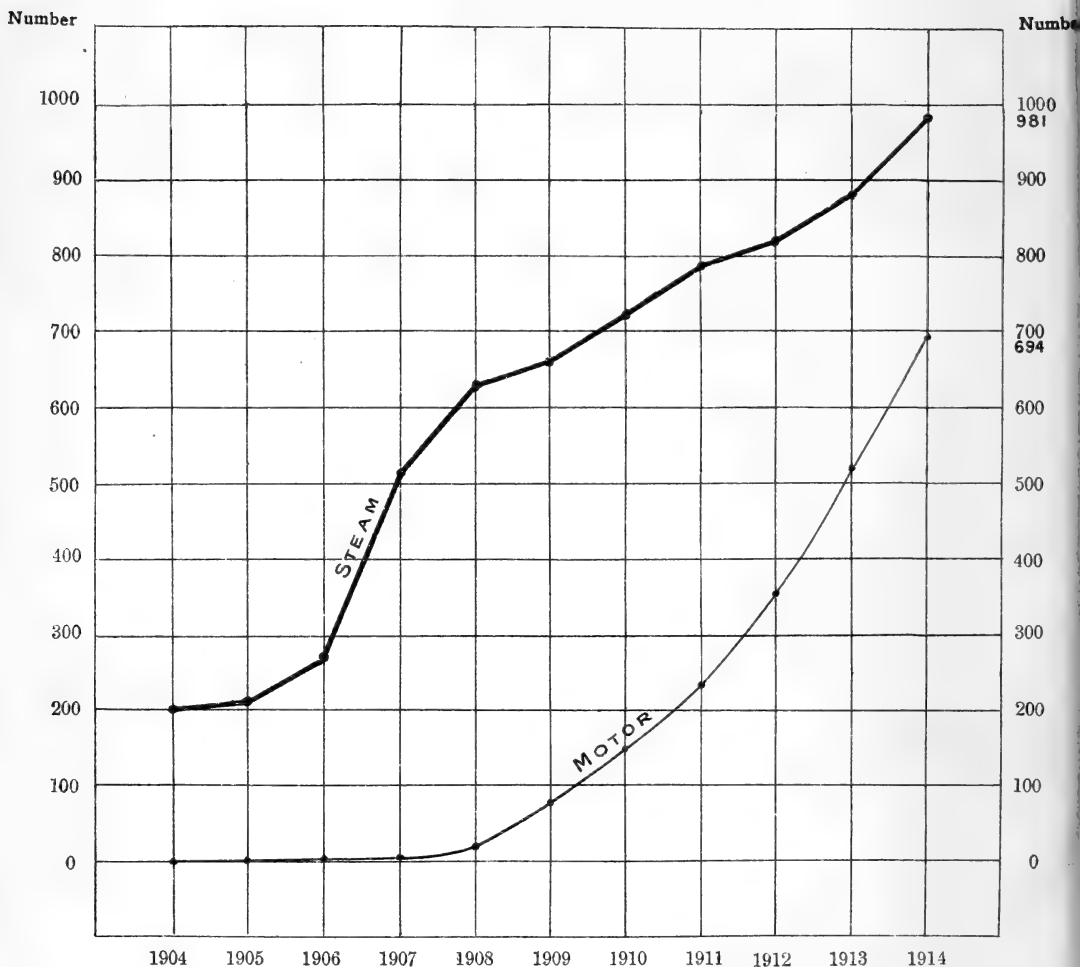
CHANGES IN MEANS OF CAPTURE.

The decrease in the total number of vessels shows the rapidity with which the sailing boats are being superseded by or transformed into vessels propelled by steam or motor power and manned by larger crews.

Our anticipation in recent Reports of a large increase in the number of power-propelled fishing vessels has been amply fulfilled. During 1914, 108 steam and 171 motor boats were added to the fishing fleet.

With regard to motor power not much progress is being made with its introduction as an auxiliary motive power into the existing fleet of herring sail boats. There are doubtless good reasons for this. The two most obvious are (1) the fact that no new herring sail boats have been built for several years, while the usual proportion are going out of

CHART SHOWING THE INCREASE OF STEAM DRIFTERS AND LINERS AND MOTOR BOATS.



action by efflux of time, and (2) the fact that no satisfactory application of the propulsive motor power of the vessel to the hauling of the herring nets has yet been devised. There are other reasons of a subsidiary character, but the above are the most outstanding.

On the other hand, the installation of motor engines into the smaller boats engaged in the inshore fisheries has been proceeding apace with undoubted advantage to all concerned. By far the greater number of the year's increase of 171 belong to this class.

On the opposite page we give a diagram showing in graphic form the increase in the steam and motor fishing fleets of Scotland during the last decade.

As contributors to the herring supplies power-propelled vessels made a further advance upon the position so long held by sailing vessels. The rapidity of the transition which is taking place in this respect is well exemplified in the following table.

TABLE showing the Percentage of the Total Catch of Herrings obtained by Steam, Motor, and Sailing Boats respectively in each year since 1906 :—

Year.	Steam Vessels. Percentage.	Motor Vessels. Percentage.	Sailing Vessels. Percentage.
1906 . . .	31	—	69
1907 . . .	45	—	55
1908 . . .	50	—	50
1909 . . .	54	—	46
1910 . . .	56	4	40
1911 . . .	59	5	36
1912 . . .	61	6	33
1913 . . .	64	8	28
1914 . . .	74	7	19

From the above table it will be seen that the proportions of the total catch of herrings contributed by steamers and sailing boats respectively have been more than reversed within the space of nine years.

DIFFERENT FISHERIES.

1. *HERRING FISHERY—GENERAL.*

The herring catch of 1914 amounted to 4,383,265 cwts. in quantity and £1,339,046 in value, as compared with 4,449,323 cwts. and £2,087,754 in 1913. This shows a decrease of 66,058 cwts. and £748,708 as compared with the previous year.

The following table gives the total results of the Scottish herring fishery since 1900 :—

Year.	Quantity. Cwts.	Value. £	Average Price per Cwt.
1900 . . .	3,520,216	1,243,407	7/
1901 . . .	4,338,635	1,061,034	4/10 $\frac{3}{4}$
1902 . . .	4,753,944	1,360,492	5/8 $\frac{1}{2}$
1903 . . .	4,279,485	1,244,656	5/9 $\frac{3}{4}$
1904 . . .	5,432,494	1,017,541	3/9
1905 . . .	5,342,777	1,343,080	5/
1906 . . .	4,979,848	1,649,163	6/7 $\frac{1}{2}$
1907 . . .	6,253,341	1,795,650	5/9
1908 . . .	5,690,114	1,151,644	4/0 $\frac{1}{2}$
1909 . . .	4,541,297	1,569,743	6/11
1910 . . .	5,687,226	1,594,308	5/7
1911 . . .	5,036,484	1,505,334	6/
1912 . . .	5,201,300	1,910,533	7/4 $\frac{1}{2}$
1913 . . .	4,449,323	2,087,754	9/4 $\frac{1}{2}$
1914 . . .	4,383,265	1,339,046	6/1 $\frac{1}{4}$

SCOTTISH BOATS IN ENGLAND AND IRELAND.

But the operations of the Scottish herring fishermen are not limited to Scotland. They participate to an important extent in the herring fishery of both England and Ireland.

The following table shows the development and dimensions of such participation :—

Year.	ENGLISH FISHING.			IRISH FISHING.		
	No. of Boats.	Catch.	Value.	No. of Boats.	Catch.	Value.
		Cwts.	£		Cwts.	£
1900	910	1,050,931	259,436	58	31,150	9,490
1901	951	850,941	197,126	104	45,619	15,718
1902	1009	1,445,797	356,428	158	35,157	12,456
1903	1184	1,166,928	213,462	218	60,928	21,967
1904	996	1,575,687	249,974	280	59,830	22,035
1905	1207	1,539,672	485,278	439	59,646	30,780
1906	1292	1,210,236	477,106	307	53,559	35,556
1907	1340	1,892,105	338,899	252	47,753	23,158
1908	1221	1,741,675	454,230	291	91,528	54,898
1909	1259	1,528,628	467,866	346	122,278	36,036
1910	1257	1,243,207	456,528	200	153,819	42,011
1911	1039	1,798,824	549,342	237	264,931	65,339
1912	1099	2,329,373	701,895	258	103,030	33,808
1913	1163	2,488,183	763,256	159	102,074	40,572
1914	125	112,068	35,817	129	76,121	24,066

Is is here that the effect of the war on the Scottish herring fishing is most strikingly manifested. The outbreak of hostilities also interfered with the prosecution of the herring fishing in England with the result that only 125 Scottish boats engaged in the English herring fishing during 1914, instead of 1163 in 1913; and added only 112,068 cwts. to the total of the fish landed in England as compared with 2,488,183 cwts. in 1913.

These figures are not included in the statistics already given of the Scottish fisheries. Though the fish are landed by Scottish boats the returns are included in the fishery statistics of the particular country in which the fish are landed.

CURED HERRINGS EXPORTED.

The total export of cured herrings for 1914 was 1,057,188 barrels. The principal market has hitherto been the Continent of Europe. The greater part of the export went to the two countries of Germany and Russia. The following is the rate of export to each since 1900 :—

Year.	To Germany.*	To Russia.
	Barrels.	Barrels.
1900	769,126	172,462
1901	998,240	233,129
1902	1,049,502	292,987
1903	794,711	303,202
1904	1,095,683	384,443
1905	1,057,315	430,554
1906	1,025,886	424,200
1907	1,186,100	627,100
1908	1,001,645	616,497
1909	786,682	574,307
1910	982,361	732,345
1911	794,219	655,814
1912	719,013	750,187
1913	672,701	619,680
1914	353,323	493,039

* From 40 to 50 per cent. of the total quantity of herrings exported to Germany is, in normal circumstances, sent over the frontier to Russia.

2. WHITE FISH FISHING.

After the herring fishery, the next most important branch of the industry in Scotland is the white-fish fishing. This fishing is carried on by means of three classes of vessels and three methods of fishing—the vessels differentiated by their methods of propulsion (steam, motor, or sails and oars), and the methods of fishing, whether by trawls

anchored nets, or by lines. We will deal with the results of these methods (1) in the aggregate, and (2) separately.

The following are the totals of the white-fishing since 1900 :—

Year.	Quantity.	Value.
	Cwts.	£
1900 . . .	1,834,498	1,074,600
1901 . . .	2,024,867	1,166,919
1902 . . .	2,076,580	1,133,088
1903 . . .	2,168,973	1,145,887
1904 . . .	2,459,373	1,202,942
1905 . . .	2,481,085	1,296,727
1906 . . .	2,558,574	1,306,529
1907 . . .	2,696,943	1,334,797
1908 . . .	2,917,295	1,351,108
1909 . . .	2,830,728	1,305,811
1910 . . .	2,968,598	1,491,339
1911 . . .	3,391,316	1,540,539
1912 . . .	3,331,799	1,666,380
1913 . . .	3,296,257	1,824,741
1914 . . .	2,949,008	1,778,973

Trawling has contributed to the foregoing result as follows :—

Year.	Quantity.	Value.
	Cwts.	£
1900 . . .	1,073,164	699,587
1901 . . .	1,325,072	820,813
1902 . . .	1,465,073	812,229
1903 . . .	1,566,370	829,932
1904 . . .	1,705,633	841,757
1905 . . .	1,745,431	948,117
1906 . . .	1,870,517	957,008
1907 . . .	2,061,336	985,751
1908 . . .	2,092,411	971,972
1909 . . .	2,020,209	953,259
1910 . . .	2,102,031	1,102,976
1911 . . .	2,439,108	1,113,820
1912 . . .	2,392,692	1,232,193
1913 . . .	2,541,948	1,424,115
1914 . . .	2,191,387	1,333,834

And all other methods as follows :—

Year.	Quantity.	Value.
	Cwts.	£
1900 . . .	757,000	371,000
1901 . . .	696,000	341,000
1902 . . .	608,700	318,300
1903 . . .	602,600	315,900

Year.	Quantity.	Value.
	Cwts.	£
1904	753,700	361,200
1905	735,654	348,610
1906	688,057	349,521
1907	635,601	349,041
1908	824,684	379,079
1909	810,519	352,552
1910	866,567	388,363
1911	952,208	426,719
1912	939,107	434,187
1913	754,309	400,626
1914	757,621	445,139

PERSONS EMPLOYED.

The number of persons employed in the fisheries of Scotland and the various industries subsidiary thereto in the year 1914 was 87,119. Of these, 37,594 manned the fishing fleet, 16,068 were gutters and packers of herrings, 11,211 were engaged in the carrying trade, and the remainder were engaged in other operations connected with the fishing industry.

INTELLIGENCE.

The Board's system of official telegraphic information between ports at which a herring fishing is in progress was begun in a tentative way in the year 1895. Last year the number of telegrams issued was 3836.

The telegrams are despatched daily at noon by the Board's Fishery Officers from their own ports to every other port in Scotland at which a herring fishing is then going on, and in the event of additional information of value becoming known later in the day a second telegram is despatched. Upon receipt they are exhibited publicly at the fishmarkets and other public places, where they can readily be seen by all concerned.

The points on which the telegrams give information are (1) number of arrivals of herring boats, (2) average catch per boat, (3) quality of the fish, (4) range of prices, (5) position of chief fishing grounds, and (6) nature of wind and weather. Duplicates of all these telegrams are at the same time sent to the Head Office in Edinburgh.

At the end of each week telegrams are sent by each District Officer to the Board giving the catch for the week, the quantity cured, the number of barrels branded under each brand, the quantity exported, and the countries to which exported. This information is

tabulated, and a statement of the totals for the East Coast, Orkney and Shetland, and the West Coast respectively is sent for publication to the Press.

A statement is also issued at the end of each month showing the quantity of cured herrings of each description in stock in this country.

Information is also received from Germany, Holland, Norway, and Sweden, giving particulars, in so far as those countries are concerned, of the catch, cure, and export of herrings and other sea-fish, and this is also issued to the Press for the information of those interested.

The publication of such information in the Press depends, however, upon the convenience and the exigencies of the time and space at the disposal of the various newspapers, many of which do not circulate extensively among those most directly interested. The Board therefore have had long in contemplation a publication of their own in order to make all the information at their disposal directly available to those engaged in the various branches of the fishing industry. Hitherto they have not been enabled to succeed in this object for the lack of funds.

IMPROVEMENT OF FISHERY HARBOURS.

From time to time the Board have pressed the question of the growing need of increased harbour accommodation, owing to the change from sailing boats to steamers of the vessels engaged in the herring fishing. Harbours which were adequate to the circumstances existing at the time of their erection are becoming year by year less capable of meeting the growing demand both in docking space and depth of water. Fishermen are thus forced to lay up their fishing boats during the winter months at sometimes considerable distances from their homes. The necessary attention and repairs required can only be carried out at great expense in travelling and otherwise, to say nothing of enhanced dock charges. Several other inconveniences and economic dangers following upon the phenomenal rapidity of change from sailing power to steam have impressed upon the Board the absolute necessity of making the harbours reasonably adequate to meet that change. This is without doubt one of the most pressing problems in connection with the herring fishing industry.

In our Report for 1912 we stated the steps taken by us to bring the needs of Scotland in this respect before the proper authorities, and the result at present stands as under :—

GRANTS AND LOANS TO SCOTTISH FISHERY HARBOURS.

Harbours.	By Development Commissioners.			By Fishery Board.	Total Free Grants.	Total Loans.	Total Amount being applied to Harbour Assistance.
	Free Grant.	Loan Free of Interest.	Loan bearing Interest.	Free Grant.			
	£	£	£	£	£	£	£
Berwick-on-Tweed	4,000	..	7,000	..	4,000	7,000	11,000
Eyemouth .	1,200	..	2,500	..	1,200	2,500	3,700
St. Andrews .	..	..	..	1,500	1,500	..	1,500
Stonehaven .	6,500	7,000	..	..	6,500	7,000	13,500
Fraserburgh .	20,000	..	20,000	..	20,000	20,000	40,000
Pennan .	..	..	..	321	321	..	321
Gardenstown .	4,000	..	4,000	..	4,000	4,000	8,000
Macduff .	10,000	..	12,000	2,000	12,000	12,000	24,000
Banff .	..	..	..	3,000	3,000	..	3,000
Whitehills .	..	..	..	2,250	2,250	..	2,250
Cullen .	2,300	..	2,300	500	2,800	2,300	5,100
Portknockie .	3,200	..	2,800	..	3,200	2,800	6,000
Findochty .	1,500	..	1,500	500	2,000	1,500	3,500
Buckie .	8,000	25,000	..	2,000	10,000	25,000	35,000
Lossiemouth .	2,000	..	10,000	1,000	3,000	10,000	13,000
Nairn .	7,000	..	..	..	7,000	..	7,000
Avoch .	..	..	..	500	500	..	500
Cromarty .	750	..	1,500	..	750	1,500	2,250
Wick .	..	15,000	..	..	..	15,000	15,000
Whitehall, Stronsay .	10,000	..	..	..	10,000	..	10,000
Lerwick .	7,500	..	..	..	7,500	..	7,500
Ullapool .	2,000	1,500	..	..	3,500*	3,000*	6,500*
Port Charlotte .	..	..	..	100	100	..	100
Maidens .	..	..	..	1,500	1,500	..	1,500
Totals .	89,950	48,500	63,600	15,171	106,621*	113,600*	220,221*

* Including £1,500 grant and £1,500 loan from Board of Agriculture for Scotland.

A report by Mr. R. Gordon Nicol, M.Inst.C.E., the Board's Consulting Engineer, on the various harbours at which operations are in progress will be found under Appendix M.

MEANS OF CAPTURE.

I. INTRODUCTORY REMARKS.

Particulars of the vessels and men engaged in the Scottish fisheries are given in Appendices A, No. 1, and A, No. 2 (pp. 4 to 57).

In Appendix A, No. 1, the vessels are tabulated according to the method of propulsion—sails or oars, motor, and steam, the last-mentioned class being subdivided into trawl vessels and other steam vessels—and this Appendix gives particulars not only as to vessels owned and registered in Scotland, but also as to vessels registered in other parts of the United Kingdom which have fished regularly during the year or fishing season from Scottish ports.

In Appendix A, No. 2, only Scottish vessels and boats are included, and these are tabulated according to length and shown under the various stations or creeks. The principal fishings carried on, and the

quantity and value of the fish landed at each station are also shown in this Appendix.

The total number of Scottish fishing vessels was 8394, the value of which, including fishing gear, was £5,041,191, as compared with 8512 vessels, valued with gear at £4,811,269 in 1913.

The vessels from other parts of the United Kingdom engaged in the Scottish fisheries numbered 475, of a total value of £1,256,554. The corresponding figures for 1913 were 479 vessels, valued at £1,224,683.

Before considering the figures in detail it may be explained that the statistics as to the number and value of the Scottish vessels are based on the number of vessels appearing on the registers at the close of the year, but the number of fishermen engaged has been taken as at the end of July—immediately prior to the outbreak of the war. By the close of the year a considerable proportion of the steam fishing fleet had been chartered for service under the Admiralty, while, in addition to the reservists called up in August, a large body of fishermen had joined the regular naval and military forces or the subsidiary Admiralty services, or had obtained temporary employment in other occupations.

II. MEN.

The number of men employed on British fishing vessels engaged in the Scottish fisheries was 37,594. That number included, however, 1036 men from inland centres engaged during the herring fishing season only, and 4421 English and Irish fishermen similarly engaged, or working on English trawlers fishing during the year from Aberdeen. The number of Scottish fishermen, including crofter fishermen, was accordingly 32,137—a decrease of 541 from the previous year.

The distribution of the total of 32,137 among the different classes of fishing vessels is shown in the following table, the figures for 1913 being added for comparison :—

	1914.	1913.
Sailing Boats (including sailing trawlers).	19,766	21,502
Motor Boats	2,776	2,236
Steam Drifters and Liners	6,483	5,884
Steam Trawlers	3,112	3,056
Total	32,137	32,678

The above represents the normal allocation, but during the principal herring fishings a considerable body of the fishermen returned as working sailing boats are employed as hired hands on steam drifters.

The year was fortunately free from labour troubles such as were referred to in the Report for 1913.

III. SAILING VESSELS (EXCLUDING TRAWLERS).

A reference to Appendix A, No. 1 (pp. 4-7), will show that the transition from sail to steam and motor boats continues. For the year a decrease of 403 sailing boats was recorded, as compared with 569 in 1913 and 445 in 1912. A few districts showed slight increases, but in the majority decreases fell to be recorded.

The first class sail boats of over 45 feet keel have decreased by 183,

and of between 30 and 45 feet keel by 9, and the second class by 224, but in the smallest class—under 18 feet keel—there was an increase of 13.

The distribution of the different classes among the principal divisions of the coast is as follows :—

	East Coast.	Orkney and Shetland.	West Coast.
First Class—over 45 feet			
keel	936	182	61
Do. do. 30–45 feet			
keel	163	7	151
Second Class	871	40	991
Third Class	1104	584	1269
Totals	3074	813	2472

From a comparison of these figures with the corresponding table appearing on page xiii. of the Report for 1913, it will be observed that the greatest decrease occurred in the East Coast districts, while the West Coast has practically maintained its position. The decrease on the East Coast does not, however, imply any real diminution of fishing power, as it is more than compensated for by the increase of mechanically-propelled vessels referred to later.

IV. STEAM DRIFTERS AND LINERS.

From Appendix A, No. 1 (pp. 10–15), it will be observed that the total number of steam drifters and liners engaged in the Scottish fisheries during 1914 was 1437, an increase of 96 over the number in 1913. The total includes, however, 456 English and Irish vessels engaged in Scottish waters during the summer herring fishery only, so that the purely Scottish fleet was 981, as against 884 in 1913, an increase of 97.

In continuation of the return given in previous reports the following table shows particulars of the Scottish steam fishing fleet during the past 10 years :—

YEAR.	VESSELS.					FISHING GEAR.		MEN AND BOYS EMPLOYED.*	
	Number.	Percentage of Increase.	Tonnage.	Percentage of Increase.	Value.	Percentage of Increase.	Value.	Percentage of Increase.	Number.
1905	209	2	5,177	0	£ 452,080	0	64,327	8	1,747
1906	274	31	6,538	26	608,060	35	96,588	50	2,347
1907	508	85	11,828	81	1,245,268	105	182,426	89	3,993
1908	626	23	15,610	32	1,535,550	23	232,216	27	4,924
1909	665	6	16,864	8	1,635,602	6½	248,455	7	5,428
1910	725	9	18,757	11	1,762,686	8	272,982	10	5,748
1911	794	10	21,146	13	1,903,298	8	303,201	11	6,034
1912	824	4	22,470	6	1,953,140	2½	315,722	4	6,280
1913	884	7	24,708	10	2,051,980	5	343,362	9	6,536
1914	981	11	31,377	27	2,205,783	7½	376,491	10	7,086

* Including non-resident men.

It may at first sight seem strange that such a large addition to the fleet—the greatest recorded since 1908—should have occurred in a year which has so seriously affected those engaged in herring fishing, but it must be remembered that the increase in any particular year is mainly dependent on the success or failure of the operations of the years immediately preceding. The years 1912 and 1913 were years of exceptional prosperity, and this prosperity was reflected in the increase of the fleet in the early months of 1914.

The majority of the East Coast districts share in the increase, and in the outlying districts of Shetland and Stornoway additions also fall to be recorded. It was indicated in the Report for 1913 that in the Eyemouth district a movement towards steam drifters had set in, and this movement has resulted in an addition of 9 steam drifters to the local fleet, the total for 1914 being 19, as compared with 10 in 1913.

It will be observed that the tonnage of the fleet shows a much greater relative increase than the number of vessels, and it may be mentioned that this is mainly due to a re-measurement of the older vessels in accordance with revised regulations.

The results of the herring fishing in Scottish waters and the earnings of Scottish vessels at the English and Irish fishings are dealt with fully in a later portion of the Report (pp. xviii and xxxvi), but the following table showing the average earnings for some of the districts may be of interest :—

DISTRICT.	AVERAGE EARNINGS PER VESSEL.			
	Great Summer Herring Fishing.		English Herring Fishing.	
	1914.	1913.	1914.	1913.
	£	£	£	£
Anstruther. . . .	366	962	—	790
Aberdeen	500	700	—	715
Peterhead	630	1,260	420	850
Fraserburgh	550	1,250	94	760
Banff	700	1,280	430	720
Buckie	500	1,200	400	800
Findhorn	721	1,200	420	760
Wick	700	1,350	363	670

Those figures represent the gross earnings, and as the working expenses represent a larger proportion of the earnings last year than is usually the case, the serious effects which the war has had on the industry will at once be appreciated.

As regards the English fishing the loss to the fishermen as a whole was even more serious than is indicated by the figures given above. The number of drifters which took part in the fishing was only about one-tenth of the usual number, while the dangers from mines, &c., caused the majority of the small fleet to abandon the fishing some time before the end of the season, with the result that the total gross earnings of the Scottish boats amounted to only £36,000, as compared with £763,000 in 1913.

The few boats which persevered in the fishing in spite of the dangers made good earnings. The average for seven Eyemouth

drifters, for example, was £1434, and one of those seven grossed £2700.

V. TRAWL VESSELS.

The returns for 1914 show that the number of steam trawlers registered in Scotland at the end of the year was 313, an increase of 15 as compared with 1913. Trawlers registered in other parts of the United Kingdom but working regularly from Scottish ports were 3 fewer than in 1913—19 as compared with 22.

The Aberdeen register records the major portion of the increase, but a number of vessels on that register are now owned at Leith and Granton, and work from the Firth of Forth. The trawlers returned under Greenock district work, as a rule, from East Coast ports.

The increase in tonnage recorded is greater, relatively, than the increase in the number of vessels, and, as in the case of the steam drifters, this is mainly due to re-measurement of the older vessels.

The district of Ballantrae, to which the only Scottish sailing trawlers belong, is now also represented in the steam trawler return. A second-hand vessel was purchased by an Ayr owner, and registered at that port, from which it worked for some months, but unfortunately only with moderate success.

The number of German trawlers working from Aberdeen increased from 30 in 1913 to 32 in the year under review, but their operations ceased on the outbreak of war.

VI. MOTOR BOATS.

The returns regarding motor fishing boats again show a substantial increase in the number on the registers, the total being 694, as compared with 523 in 1913, an increase of 171.

This increase is the greatest which has yet been recorded in any one year, as will be seen from the following statement showing the numbers of the motor fleet since 1901,—when the first motor boat to take part in the Scottish fisheries appeared, viz. :—

Year.	First Class.		Second Class.		Third Class.		Total.	Increase in each year.
	Over 45 feet keel.	30 to 45 feet keel.	18 to 30 feet keel.		Under 18 feet keel.			
1901	1	..	..		..		1	1
1902	2	..	..		..		2	1
1903	3	..	..		..		3	1
1904	3	..	..		..		3	..
1905	4	..	..		..		4	1
1906	5	..	..		..		5	1
1907	6	..	1		..		7	2
1908	10	1	7		..		18	11
1909	35	3	30		7		75	57
1910	56	1	90		9		156	81
1911	75	4	144		10		233	77
1912	81	15	244		16		356	123
1913	102	80	313		28		523	167
1914	152	113	397		32		694	171

The usual statistics as to motor boats will be found in Appendix A, No. 1 (page 8), but the information there given may be supplemented by the following table giving the numbers in each class on the different sections of the coast :—

Districts.	First Class.		Second Class.	Third Class.	Total 1914.	Total 1913.
	Over 45 feet keel.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.		
Eyemouth to Fraser-						
burgh	104	80	53	1	238	160
Moray Firth . . .	45	10	57	11	123	80
Orkney and Shetland . .	..	4	18	16	38	39
West Coast (except						
Firth of Clyde) . .	3	13	39	1	56	40
Firth of Clyde . . .	..	6	230	3	239	204
Totals . . .	152	113	397	32	694	523

No outstanding development in the use of motor power falls to be recorded. The additions to the fleet have principally been in districts where the benefits of motor propulsion have already been demonstrated, and the districts which have been slow to adopt motors are still backward. It is, of course, only in some cases that this backwardness is due to the lack of enterprise. At the main centres of the steam fishing fleet, for example, motor power for drifters has not found favour, while the pursuit of the herring fishery has left the fishermen little time or attention to devote to the subsidiary fishings, for which the smaller classes of motor boats have proved themselves eminently suitable.

From the table on page xv, it will be observed that the greatest increase was again in the second class, but that substantial additions were also made to both sections of the first class. The increase in the largest class (over 45 feet keel)—the greatest yet recorded in any year—is one of the striking features of the table, in view of the experience in previous years.

The East Coast districts show an increase of 121 of all classes, and the West Coast an increase of 51, but Orkney and Shetland return a decrease of 1.

On the East Coast the principal increases were recorded in the districts of Anstruther, Montrose, Banff, Wick, Leith, Fraserburgh, and Eyemouth, the additions in those districts being 24, 19, 19, 16, 13, 11, and 10 respectively, or collectively 112 out of a total of 121.

In Anstruther the increase was largely due to the success which motor boats attained during the winter herring fishing in the Firth of Forth, and to the good earnings of the small motor line boats. As mentioned in the Report for 1913, the motor has re-created the small line fishing industry in the district, and the fleet of motor yawls has doubled during the year.

In Montrose district the increase was attributable to the continued superiority of the results obtained by motor boats at line fishing, and for the increase in the Banff district fleet the village of Whitehills is again mainly responsible.

In the Firth of Clyde districts there was an addition of 35, Campbeltown, Ballantrae, and Inveraray having increases of 15, 14, and 8 respectively, while Greenock was stationary, and Rothesay showed a decrease of 2.

Each of the outer West Coast districts return small increases, that of 9 in Loch Carron and Skye being the most important. During the year motors were installed in several boats belonging to the west side of Skye, and it is reported that the experiment has been so successful that a number of other crews are following the example.

As was the case in 1913, the majority of the boats in which motor power was installed were sailing boats already on the register, and only a few boats were specially built for motors.

The types of engines which have in past years been found most suitable by the fishermen continued in favour during 1914, although one or two new makes were introduced. In the Clyde and other districts the tendency towards higher powered motors, to which reference was made in the Report for 1913, was again apparent.

Little further has been done in the matter of motor capstans, but the use of the hauling gear mentioned in last year's Report is extending.

In the Reports for 1913 and previous years the advantages and earning powers of motor boats of different classes have been fully dealt with, and it is not proposed on this occasion to go into the subject in any detail. The reports received from the Board's officers continue to show that as a general rule the cost of installing motor power is a sound investment. The reports are, of course, not all optimistic, but in the majority of cases in which the earnings of motor boats did not considerably exceed those of sail boats of the same size it appears that the failure was largely contributed to by lack of enterprise on the part of the fishermen, and the continued substantial increase in the motor fleet is of itself conclusive evidence of the value of motor propulsion in fishing boats.

FISH LANDED.

I. TOTAL CATCH.

In view of the fact that about 70 per cent. of the sea-fish landed in Scotland annually is taken from the North Sea, it was inevitable that any war which involved naval operations in that area would seriously affect the fish supply, and it is not a matter for surprise, therefore, that the catch for 1914 should show a large falling-off from the standard of recent years. Considering, however, that fishing operations were restricted for nearly half of the year, the decrease, as compared with the catch of 1913, is much less than might have been expected, and this is due to the fact that, at the date when war was declared, the catch of practically every species of sea-fish showed a substantial increase upon the preceding year's figures at the corresponding date, and had fishing operations pursued their normal course, the indications are that the year under review would have been a notably successful one.

The decrease is, nevertheless, sufficiently serious, and it is beyond question that the situation created by the war is bearing very heavily upon the fishing industry. Yet from a purely fishery point of view the war is perhaps not a wholly unmitigated evil, since it has established an effective close-time over the greater part of the North Sea.

Whether justified or not, the conviction has been growing in fishery circles that in consequence of the ever-increasing intensity of fishing operations in that area, the grounds are being gradually impoverished. It is, of course, of vital importance that the stock of fish should be conserved, and various measures have been advocated from time to time with that object in view—among others, the compulsory closing of sections of the North Sea, and if there is any virtue in this measure there should be a marked increase in the productivity of the grounds when they are again opened to fishing. It is certain that, in normal circumstances, it could have been put into force, if at all, only after protracted negotiations between the various countries interested, but the war has furnished a unique opportunity of putting it to the test, and its effect will be watched both by ichthyologists and practical fishermen with the keenest interest.

As stated in the introduction to this Report, the total quantity of fish landed in Scotland in 1914 (exclusive of shell-fish) was 7,440,321 cwts., valued at £3,143,507, these figures representing a decrease in quantity of 388,029 cwts., and in value of £781,853, as compared with the preceding year's totals. For the decrease in quantity, demersal fish were mainly responsible, their share of the deficiency amounting to 89 per cent., but the reverse was the case as regards the decrease in value, 94 per cent. of which was referable to pelagic fish. Towards the aggregate catch, herrings and other pelagic fish contributed 60 per cent., and demersal fish 40 per cent., as compared with 58 per cent. and 42 per cent. respectively in 1913; and of the demersal fish 74 per cent. was taken by trawlers, and 26 per cent. by lines and nets, as compared with 77 per cent. and 23 per cent. in the preceding year. Of the total value, 43 per cent. was referable to pelagic fish and 57 per cent. to demersal fish, as against 54 per cent. and 46 per cent. in 1913. The average price per cwt. realised was 8s. 5d., as compared with 10s. in 1913, and 8s. 4d. in 1912, the decline from the standard of 1913 being due to a fall in the average price of herrings of about 35 per cent. The shell-fish landed realised £65,029, as compared with £72,357 in the preceding year, bringing the grand total value of all kinds of fish up to £3,208,536, or nearly 20 per cent. less than in 1913. It must be remembered, however, that the value of the fisheries in that year was by far the highest ever recorded, and if, excluding that exceptional year, the comparison is made with the average for the ten years 1903–1912, it is found that the figures for 1914 exceed it by nearly 12 per cent.

II. PELAGIC FISH TAKEN BY NETS AND TRAWL.

(a) *HERRINGS.*

When the history of the Scottish herring fishery comes to be written, the year 1914 will be found linked with 1884 and 1885, and possibly 1907, as one of the black years of the industry. In the earlier years, however, the curers alone were the sufferers, whereas in the year under review the workers in every branch of the industry—fishermen, curers, and shore-workers alike—were affected. If the position of the fishermen be judged merely by the value of the herrings

landed, the impression might be gained that matters were not so bad as they have been stated to be, for it must be admitted that the altogether exceptional earnings of the last two years hardly form a fair standard of comparison, and only ten years ago the total sum received by the herring fishermen in 1914 would have been considered as marking an eminently successful year. It must be borne in mind, however, that even in that short time the industry has been revolutionised by the growth of the steam-fishing fleet, as the result of which the capital value of the herring fleet has been doubled, and it is obvious, therefore, that a sum which would constitute a good return for the capital invested ten years ago would be altogether inadequate now. At the same time, the financial loss entailed by the premature close of the Scottish fishing would not have been such a serious matter if it had been found possible to prosecute the East Anglian fishing, since the sum earned during the first six months of the year was actually considerably greater than in the corresponding period of 1913, but their forced abstention from the English fishing deprived the fishermen and curers of a source of income which, calculated on the average of the three preceding years, would have yielded an additional revenue of £636,000.

The total catch of herrings in 1914 amounted to 4,383,265 cwts., valued at £1,339,046, as compared with 4,449,323 cwts. and £2,087,754 in the preceding year. The decrease in quantity was due solely to the collapse of the autumn fishing, as both the winter and early fishings show large increases, the two latter having been, as a matter of fact, the highest and second highest respectively on record. The decrease in value is very marked, and was due, quite apart from the large shortage in the yield of the autumn fishing, to the fact that prices fell from the inflated standard of the preceding year to their normal level.

The influences which forced up prices in 1913 were detailed in last year's Report, and need not be recapitulated. Some explanation of the heavy drop which took place during the year under review is necessary, however, and it is to be found in the fact that an understanding was arrived at among the Continental buyers to refrain from transactions in the early immature fish, over which they had incurred serious losses in previous years. A general tendency had also manifested itself on this side to defer the opening of the fishing, which the knowledge of the intentions of the Continental importers served to strengthen, and the result was that in 1914 the season was considerably further advanced before the full strength of the fleet was engaged. It is true that once the fishing was in full swing, curers conducted operations on quite as large a scale as before, but as the landings were much heavier, the competition among them at no time became so keen as in the previous season, and prices remained at a fairly moderate level throughout the early fishing.

The extent of the fall in prices is strongly brought out by a comparison of the average prices per cwt. realised for herrings in 1913 and 1914, the figures being respectively 9s. 4½d. and 6s. 1d.

As was the case in the preceding year the fishing fell away rapidly during July, and the alarming way in which the landings dwindled is well illustrated by the following table showing the weekly catches from 22nd June to 25th July :—

Week ending 27th June	..	..	151,000 crans.
„ 4th July	..	..	90,000 „
„ 11th „	..	..	65,000 „
„ 18th „	..	..	49,000 „
„ 25th „	..	..	42,000 „

The similarity between the seasons of 1913 and 1914 was heightened by the fact that towards the end of July the catches showed a marked improvement, and the success of the limited operations subsequently carried on points strongly to the probability that, in ordinary circumstances, the latter half of the season would have been highly successful.

The average prices obtained by steam, motor, and sailing vessels over the whole year were respectively 6s. 1d., 6s. 10d., and 5s. 11d. As a rule the steamers, owing to the advantage which their superior mobility gives them in catching the market, receive better prices than sailing vessels, and the practical equality as between steam and sail evidenced by these figures is due to the disturbing influence of the record winter catch, 77 per cent. of which was landed by steamers, and for which relatively low prices were realised. The higher average obtained by the motor boats is explained by the fact that a large proportion of their total contributions is landed in the Clyde, where the supply for the greater part of the year was not equal to the demand, and prices in consequence ruled at a higher level than on other parts of the coast.

Of the total landings, the East Coast contributed 50 per cent., Orkney and Shetland 29 per cent., and the West Coast 21 per cent., as compared with 53, 23, and 24 per cent. in 1913; while as regards value the corresponding percentages were 48, 31·5, and 20·5, as against 55, 25, and 20 in the preceding year. An examination of the district returns shows that Shetland, with a catch of 957,000 cwts., regained the position at the head of affairs which it last year resigned to Peterhead. The latter district, however, retained the second place, although at a considerable distance, and was closely followed by Stornoway, Wick, and Fraserburgh, in the order named, these districts collectively accounting for 74 per cent. of the entire catch.

As usual, the lion's share of the catch fell to the steam-fishing fleet, which, with 74 per cent. of the year's total to its credit, as compared with 64 per cent. in 1913, still further widened the gap between it and the sailing vessels. Motor boats also fell behind during the year, and the remainder of the catch was divided between the sail and motor fleets in the ratio of 2·9 : 1.

As hostilities broke out before the herring trawling season had come round, the war has for the time being solved this vexed question in so far as the North Sea is concerned, and the only shot which was secured by means of the special herring trawl net in 1914 was taken on the west coast of Tiree. The total quantity of herrings landed by trawlers was 4270 cwts., which realised £2459, as compared with 12,106 cwts. and £6628 in the preceding year.

Winter Herring Fishing.

During the last two years the winter herring fishing has undergone a remarkable development. It will perhaps be recalled that the catch for 1913 was the heaviest ever landed, exceeding the previous best

by over 23 per cent., but that catch was in its turn left far behind by the winter fishing of 1914, the yield of which was 863,958 cwts., or 38 per cent. in advance of the preceding year's record. The principal centres of this fishing are Stornoway, the Firth of Forth, and Wick, and all three shared in the increase. Stornoway, with a catch of 388,778 cwts., improved upon last year's landings (which were 67 per cent. in advance of the previous record) to the extent of 22,254 cwts., and in the Firth of Forth the catch of 133,632 cwts. was more than three times as much as in 1913. But the most striking advance occurred at Wick, where 161,877 cwts. were landed, as compared with 46,957 cwts. in 1913. Prior to 1914, the most successful winter fishing ever prosecuted from Wick yielded not quite 68,000 cwts.

The value of the catch was £193,060, which gives an average price per cwt. of 4s. 5½d., as compared with £174,740, and 5s. 7d. in 1913.

Both in the Minch and on the north coast of Sutherlandshire, where the Wick fleet operated, the shoals were exceedingly dense, and individual shots of from 100 to 200 crans were of frequent occurrence; but, unfortunately, weight of fish and stormy weather caused a considerable loss of netting, and the fishermen's earnings were in many cases much reduced thereby.

It will be observed that sail-boats landed only 129,000 cwts., or 15 per cent. of the total, and that practically the whole of this quantity is referable to the Firth of Forth, the reason being, of course, that these vessels are unsuited for working in exposed waters in winter.

Early Herring Fishing.

The early herring fishing, which covers the second quarter of the year, was, for reasons which have already been referred to, later in starting in 1914, and operations had not become general until after the middle of May; but so successful did it prove that by the end of June no less than 2,237,431 cwts. had been landed, or 55 per cent. more than in 1913. This large increase was due entirely to the success of the fishing on the East Coast from Aberdeen northwards to Shetland, as there was a slight decline in the southern section of the East Coast, while the West Coast fishing can only be described as a failure, the total landings being the lowest recorded throughout the whole period during which seasonal statistics have been published, viz. since 1896.

Of the total catch, 53 per cent. was landed on the East Coast, 41 per cent. in Orkney and Shetland, and 6 per cent. on the West Coast, as compared with 43, 42, and 15 per cent. respectively in the previous year.

The value of the catch was £634,139, as compared with £610,304 in 1913, from which it will be seen that although they landed 792,000 cwts. more than in the preceding season, fishermen only benefited financially to the extent of £23,835. The average price per cwt. works out at 5s. 8d., as compared with 8s. 5d. in 1913.

Great Summer Herring Fishing.

The great summer herring fishing covers, for statistical purposes, the period from 1st July to the close of the year, although this dis-

tion is nowadays a purely arbitrary one, as there is now no break between it and the early summer fishing. Last year, however, this fishing, at least on the east side, closed to all intents and purposes at the end of July, owing to the disorganised condition into which the industry was plunged by the outbreak of war with Germany. The fishing thus ran practically only one month of its course, while to make matters worse the landings during that time were very light, owing to the calm and foggy weather which prevailed. It is true that, after a measure of confidence had been restored, operations were resumed by a number of vessels which were able to make up crews from the residue of men left after the mobilisation of the Royal Naval Reserve, but they were necessarily restricted to supplying the limited home market, as in the absence of a market on the Continent for cured herrings, curers had ceased to purchase, and had closed down their stations.

The effect of the conditions described above is seen in the reduced landings for 1914, which amounted to only 1,281,876 cwts., valued at £511,847, as compared with 2,377,657 cwts., and £1,302,710 in the preceding year. All three sections of the coast share in the decrease, but on the West Coast, the falling off was not due to the conditions set up by the war, but to the failure of the fishery in the Clyde. Owing to its remoteness from the scene of hostilities, it was not necessary, in this area, to place any restriction upon fishing operations, which were consequently carried on without intermission, but the total landings nevertheless amounted to only 27,000 cwts., as against 130,000 cwts. in the preceding year. On the remainder of the West Coast, the catch, indeed, shows the substantial increase of 54,000 cwts., or 28 per cent., upon the returns for 1914, which is accounted for by the fact that, owing to the breakdown of the English fishing, a larger number of East Coast vessels than usual participated in the lochs fishing during the closing months of the year. These vessels obtained a very heavy fishing during November and December in Loch Bracadale, where, it may be recalled, a very dense shoal was located during the same period in 1912.

The average price per cwt. obtained for the great summer catch was 7s. 11 $\frac{3}{4}$ d., as against 11s. in the preceding year.

The quantity of herrings landed in each district monthly in 1914, together with the totals for 1913, is shown in the following table, from which a good idea of the vicissitudes of the herring fishery during the two years may be gained:—

[TABLE.

RETURN showing the Quantity of Herrings landed in each District in each Month of the Year 1914.

District.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.	Cwt.
Eymouth . .	2,975	5,012	1,848	21	14,128	26,396	31,944	12,564	2,100	..	..	..	96,988
Leith . . .	7,310	18,218	3,604	422	231	70	1,319	276	147	..	5	123	31,725
Anstruther .	15,676	41,765	47,059	279	14	505	3,607	350	..	..	7	..	109,262
Montrose . .	100	45	385	42	178	2,078	11,978	221	..	..	31	..	15,058
Stonehaven .	..	..	..	14	679	1,421	1,698	609	..	..	..	..	4,421
Aberdeen . .	2,052	11,845	3,465	1,493	12,155	58,611	53,837	15,028	505	357	160	15	159,523
Peterhead . .	2,926	2,793	798	..	77,241	388,218	109,849	16,174	112	..	..	..	598,111
Fraserburgh .	3,024	5,498	1,463	..	33,870	342,142	157,731	13,125	1,232	..	..	..	558,085
Banff . . .	1,221	1,918	332	..	952	8,187	5,427	1,632	14	..	..	..	19,683
Buckie . . .	2,050	4,345	185	..	186	4,942	7,903	5,319	63	..	..	..	24,993
Findhorn . .	3,973	2,870	172	..	147	1,386	1,575	1,736	166	678	1,263	4,822	18,788
Cromarty . .	28	..	..	..	..	..	..	..	..	56	10	..	94
Helmsdale .	..	..	..	..	..	..	7	42	112	8	..	..	169
Lybster . . .	..	..	..	..	..	28	..	..	22	..	..	..	50
Wick	52,775	101,762	7,340	..	47,454	148,817	149,181	50,558	2,288	147	4	24	560,350
Orkney . . .	20	1,832	137	..	12,404	142,652	165,175	8,050	136	..	..	..	330,406
Shetland . .	21	14,227	6,639	930	248,135	516,628	165,796	1,677	1,177	..	..	1,995	957,225
Stornoway .	214,746	166,239	7,793	90	26,862	18,225	51,181	15,390	28,178	13,155	14,235	17,856	573,950
Barra	3,997	336	91	..	28,931	12,414	799	300	..	..	..	706	47,574
Loch Broom .	5,181	..	17	..	350	394	248	1,440	2,220	2,904	66	256	13,076
Loch Carron .	..	..	..	..	..	..	..	..	..	..	..	..	..
and Skye . .	4,999	1,163	172	69	346	790	3,506	1,832	6,222	3,444	2,445	10,740	35,728
Fort-William	31,538	17,699	1,568	70	23,965	7,527	638	2,881	7,664	2,505	4,343	47,648	148,046
Campbeltown .	4,488	5,300	5,586	5,979	3,410	11,305	6,398	4,133	1,200	671	367	992	49,829
Inveraray . .	..	..	..	14	14	434	1,550	1,050	105	14	..	35	3,216
Rothsay . . .	80	46	224	290	73	202	1,581	1,007	22	52	110	14	3,701
Greenock . .	146	504	938	371	..	325	330	2,405	7	10	..	..	5,036
Ballantrae .	1,925	9,306	168	231	538	1,156	458	175	371	80	2,922	818	18,148
TOTALS 1914	361,251	412,723	89,984	10,315	532,263	1,694,853	933,716	157,974	54,063	24,081	25,968	86,044	4,383,235
TOTALS 1913	238,371	289,445	98,331	24,536	402,852	1,018,081	972,322	1,093,238	189,977	40,129	29,652	52,277	4,449,321

(b) SPRATS, SPARLINGS, AND MACKEREL.

The sprat fishing, particularly from the fishermen's point of view, was highly successful during the year under review, the catch, which amounted to 27,294 cwts., being more than three times, and the value, which amounted to £8443, nearly five times as great as in 1913. The demand for sprats in the home markets has always been limited, and in recent years the fishermen have relied upon the purchases of the Norwegian "sardine" tinning firms as the main outlet for their catches. Last year a fair proportion of the catch was taken by Norwegian buyers, but the great increase in value was due to the scarcity of herrings in the English markets following upon the premature close of the East Anglian fishing, which induced so keen a demand for sprats that for a time these fish were realising 42s. per cran. When it is remembered that in some former years the fishermen have been glad to dispose of their catches at 3s. per cran, and even less, it is clear that the season of 1914 must have been an exceptionally remunerative one for those who engaged in this branch of the industry.

The sparling or smelt is a rare fish in Scottish waters, and only 550 cwts., valued at £1377, were landed during the year. In 1913 the catch was 305 cwts., valued at £903.

During the last two years mackerel have been very abundant in Scottish waters, and the catch in 1914 shows a further increase, 80,204 cwts. having been landed, or 5856 cwts. more than in the preceding year. The increase in value was proportionately much greater, the figures for 1914 and 1913 being respectively £15,668

and £10,190. The increase occurred mainly on the West Coast, the landings on the East Coast showing a considerable falling off, and was referable in large part to Stornoway district, where the catch (13,435 cwts.) was practically double that of 1913.

Although there was an improved demand for these fish, as is evidenced by the increased average price realised for them (3s. 11d. per cwt., as compared with 2s. 9d. per cwt. in 1913), the Scottish market for them is still very easily satisfied, and, as was the case in 1913, fishermen frequently did not trouble to land their catches, but returned them instead to the sea.

III. DEMERSAL FISH, TAKEN BY TRAWL, LINES, AND NETS.

The total quantity of demersal fish landed in Scotland in 1914 was 2,949,008 cwts., these figures representing a decrease of 347,249 cwts., or 10·5 per cent., from the catch in the preceding year. The decrease was almost wholly ascribable to the conditions set up by the war—restriction of fishing operations to circumscribed areas, reduction of the trawling fleet by Admiralty requisitions, etc.—inasmuch as the catch during the first seven months of the year was well in advance of that for the corresponding period in 1913, while at the close of the year, in spite of the handicaps referred to, the landings of no fewer than nine species of white-fish, viz. torsk, whittings, conger eels, gurnards, catfish, hake, turbot, plaice, and dabs, were in excess of the preceding year's totals. In all probability haddocks would have been the only species to show a decrease at the close of the year had operations been permitted to follow their normal course, and the fact that notwithstanding the numerous disabilities under which the fishing industry laboured during the latter part of the year, the catch of white fish in 1914 has been exceeded only during the last four years, whereas it exceeds the average for the ten years 1900–1909 inclusive by 544,116 cwts., or nearly 23 per cent., speaks well for the flourishing condition of the Scottish fisheries.

The value, which amounted to £1,778,973, was only £45,768 less than in 1913, a somewhat remarkable fact when it is remembered that the figures for that year were the highest ever recorded. This relatively slight falling off in the financial yield was due to the high prices current during the later months of the year, when fish was selling in the wholesale markets at rates heretofore unheard of in the industry. For those vessels which were successful in securing even moderate catches the period succeeding the outbreak of war was consequently the most lucrative of the year, and from the point of view of value the white-fish fishing of 1914 ranks second only to that of 1913, and exceeds the previous best (that of 1912) by £112,593, or nearly 7 per cent.

Of the total catch, trawlers landed 2,191,387 cwts., or 74 per cent. ; liners, 669,461 cwts., or 23 per cent. ; and net fishermen, 88,160 cwts., or 3 per cent. The corresponding figures for 1913 were 2,541,948 cwts., and 77 per cent. ; 660,839 cwts., and 20 per cent. ; and 93,470 cwts., and 3 per cent. The catch by nets thus maintained its position relatively to the other means of capture, while that by lines shows an appreciable improvement actually and a still greater improvement relatively, from which it is evident that trawling was the branch most affected by the special conditions obtaining in the latter part of the

year. The decrease in the trawl catch is of course explained by the requisitioning of so many vessels by the Admiralty, while the improvement in the line catch was due to the success which attended steam and motor liners throughout the year, as the catch by sailing liners fell from 311,000 cwts. to 226,000 cwts. The increase in the catch of the steam liners, which amounted to 56,391 cwts., or 18 per cent. upon the preceding year's figures, is more than accounted for at Aberdeen, where the local fleet was augmented during the early summer by a considerable number of steam-fishing vessels from other ports, which found lining more remunerative than herring fishing, and from September onwards by a number of Grimsby vessels. The motor liners' contribution amounted to 82,849 cwts., or 84 per cent. more than in 1913, an increase which furnishes the strongest testimony to the rapidity with which this method of gaining a livelihood is commending itself to fishermen.

Of the total quantity landed by trawlers, 506,875 cwts., or more than 23 per cent., was referable to the German trawlers working from Aberdeen. The operations of these vessels have been a factor of growing importance to the industry at that port in recent years, and that they would, under normal conditions, have bulked still more largely during the year under review is shown by the fact that, although they were debarred from entering the port after 1st August, their contribution was only 16,000 cwts. less than in 1913. The cutting off of practically their sole source of supply was a very serious matter for the numerous firms of fish curers in that city, and although a few Grimsby trawlers took up the Icelandic fishing in the closing months of the year, their landings went only a little way towards alleviating the situation.

Of the value, £1,333,834. or 75 per cent., is referable to trawl fish ; £401,081, or 22·5 per cent., to lines ; and £44,058, or 2·5 per cent., to nets. In 1913 the corresponding percentages were 78, 19·6, and 2·4. The average price per cwt. for the year was 12s. 1d., as compared with 11s. 1d. in the preceding year.

In the following table the fishing grounds or areas from which the Scottish white-fish supply is drawn are shown, together with the quantities of the various species taken from each :—

[TABLE.]

TABLE showing the Quantity of each kind of Demersal Fish landed in Scotland in 1914, and the Fishing Area from which taken.

Kind of Fish.	North Sea.	Iceland and Faroe.	Western Grounds.	Irish Grounds.	Mixed Grounds.	Norway.	White Sea.	Bristol Channel.	Totals.
	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.
Cod and Codling	443,056	522,624	82,054	235	15,759	276	452	3	1,064,459
Ling . . .	99,449	11,516	92,389	2,767	4,182	78	1	2	210,384
Tusk . . .	6,655	4,277	7,026	43	500	2	..	..	18,503
Saithe . . .	175,224	116,929	39,214	..	5,870	3,568	27	47	340,879
Hake . . .	23,499	46	2,944	18	1,332	3	..	2	27,844
Haddocks	460,256	102,254	36,280	11	10,925	480	316	..	610,522
Whiting	213,300	4,200	5,041	1	2,250	95	..	3	224,890
Turbot . . .	3,716	5	252	3	28	1	..	..	4,005
Halibut . . .	17,156	10,382	15,730	1,492	1,737	9	6	..	46,512
Brill . . .	365	..	69	2	8	..	..	..	444
Lemon Soles	27,738	4,574	863	..	610	3	2	..	33,790
Plaice . . .	41,967	2,607	8,675	23	342	7	59	..	53,680
Dabs . . .	10,532	315	232	..	30	..	5	..	11,114
Whitches	20,413	865	164	..	178	1	..	..	21,621
Megrims	16,457	318	569	..	386	10	..	..	17,740
Conger Eels	6,445	8	20,035	68	71	..	..	..	26,627
Skate . . .	97,024	4,674	42,688	1,369	3,857	35	..	1	149,648
Gurnards	5,373	25	1,741	..	206	..	..	..	7,345
Catfish . . .	19,643	10,122	344	..	631	6	48	..	30,794
Monks . . .	21,624	1,032	641	..	457	13	..	..	23,767
Squids . . .	158	..	3	..	..	..	..	..	161
Other Kinds	6,936	8,187	8,717	161	274	2	2	..	24,279
Grand Totals	1,716,986	804,960	365,671	6,193	49,633	4,589	918	58	2,949,008
Percentage 1914	58.22	27.30	12.40	.21	1.68	.16	.03	..	..
Percentage 1913	61.52	22.54	12.85	.23	1.94	.19	.73	..	..

It will be observed that considerably more than half of the total supply was taken from the North Sea, and nearly the whole of the remainder from the Icelandic, Faroese, and Western grounds. The variation in the percentages attributable to the North Sea and the Icelandic and Faroese grounds as between 1913 and 1914 is explained by the closing of the greater part of the North Sea to fishing operations towards the close of the year, and to the discovery of a new and exceedingly prolific ground about 27 miles S.E. of Fuglø, in the Faroe Islands, which the fishermen named "New Klondyke."

The next table shows the quantity of white-fish landed in each district in each month of the year, together with the totals for 1913, from which it will be seen that the landings in 1914 show an advance upon those of the previous year of 41,137 cwts. up to the outbreak of war.

[TABLE.

RETURN showing the Quantity of White-Fish landed in each District in each Month of the Year 1914.

District.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.
Eyemouth .	1,090	622	480	231	92	81	71	128	201	1,410	1,420	1,342	7,168
Leith .	27,627	22,397	28,883	25,277	29,638	23,005	36,632	28,776	28,898	31,433	22,629	15,013	320,208
Anstruther .	2,300	1,070	1,215	1,209	1,192	567	907	1,483	2,336	2,180	2,424	706	17,589
Montrose .	5,126	4,370	5,062	4,956	5,537	4,923	5,017	7,177	9,435	9,901	8,261	5,871	75,636
Stonehaven .	537	431	346	346	366	224	498	542	1,028	985	957	638	6,898
Aberdeen .	152,907	157,503	255,589	312,083	248,005	293,985	211,156	89,989	121,568	119,972	96,033	74,065	2,133,455
Peterhead .	623	402	643	434	1,519	2,797	2,097	774	1,197	1,610	2,048	1,302	15,446
Fraserburgh .	3,275	2,982	1,264	2,691	463	643	447	2,693	2,632	3,032	1,642	1,502	23,266
Banff .	2,344	3,573	2,492	626	322	452	572	2,223	2,729	2,706	1,994	1,938	21,971
Buckie .	4,088	9,946	9,470	1,537	169	166	212	761	1,259	1,939	1,505	1,160	32,212
Findhorn .	1,134	4,831	9,027	1,697	306	530	1,050	1,420	2,065	2,104	1,312	1,708	27,184
Cromarty .	1,037	784	815	933	650	615	660	817	651	814	558	678	9,012
Helmsdale .	984	1,103	1,359	1,222	434	473	463	1,021	1,145	1,216	1,315	1,684	12,419
Lybster .	245	73	109	321	100	73	95	89	150	160	240	360	2,015
Wick .	2,923	1,242	1,769	1,223	904	601	1,052	2,325	1,384	1,778	709	915	16,825
Orkney .	7,245	2,338	1,766	2,610	4,255	2,594	666	923	614	870	2,307	733	26,921
Shetland .	4,801	3,674	8,010	5,691	2,547	5,906	10,732	2,340	2,138	2,270	2,824	3,682	54,615
Stornoway .	8,000	4,713	4,250	1,274	2,827	6,423	4,387	3,700	1,204	1,996	2,478	1,128	42,380
Barra .	856	719	349	182	259	57	109	133	145	295	210	895	4,209
Loch Broom .	720	1,570	4,470	1,078	390	445	352	345	238	376	342	421	10,747
Loch Carron and Skye .	2,516	1,319	2,472	784	337	323	442	365	391	455	281	642	10,327
Fort-William .	4,607	9,877	11,505	1,970	352	336	224	738	2,292	2,377	1,919	485	36,682
Campbeltown .	75	326	1,794	1,239	174	748	118	190	328	273	120	125	5,510
Inveraray .	67	133	233	221	8	..	..	..	15	87	13	55	832
Rothsay .	1,018	1,275	649	306	142	90	65	81	234	524	689	507	5,580
Greenock .	104	98	301	155	255	264	102	204	244	382	238	294	2,641
Ballantrae .	3,062	3,072	6,194	3,477	1,290	1,525	1,539	1,703	1,798	1,729	999	872	27,260
TOTALS 1914	239,311	240,443	360,516	373,773	303,133	347,846	279,665	150,940	186,319	192,874	155,467	118,721	2,949,008
TOTALS 1913	189,917	318,970	318,052	427,076	343,686	292,302	295,731	247,379	217,333	241,542	183,623	220,556	3,296,257

(a) ROUND FISH.

The total quantity of round fish landed during the year under review was 2,586,014 cwts., valued at £1,374,598, these figures representing a decline in quantity of 12 per cent., and in value of 5 per cent., from the returns for 1913. The quantity is the lowest recorded since 1909, but the value is excelled only by the record made in the preceding year, and is £70,000 in advance of the previous record, which was made in 1912. The decrease in quantity is spread over all the methods of capture, but is most strongly marked in the trawl landings, which fell from 2,316,437 cwts. to 1,984,855 cwts., a decline of 14 per cent. Relatively, the decrease in the catch by nets was almost as great, the deficiency, as compared with the preceding year's catch, amounting to 10,160 cwts., or 12 per cent. Line-fishing, on the other hand, almost held its ground, the quantity credited to this method of capture (526,714 cwts.) being only 1·2 per cent. less than in 1913.

The decline in value is referable to trawl and net caught fish, as the value of the line-catch, notwithstanding the falling off in quantity, shows a substantial increase. The average prices per cwt. for trawl, line, and net fish were 10s. 9d., 10s. 6d., and 8s. 6d. respectively, as compared with 10s. 1d., 9s. 2d., and 8s. respectively in the preceding year.

Haddocks.

The decline which has been taking place in the catch of haddocks since 1911 was accentuated during the year under review, and in this case it cannot be wholly ascribed to the restrictions placed upon fish-

ing operations on account of the war, since the shortage as compared with the preceding year's catch was already pronounced when war broke out, the figures for 1914 and 1913 as at 31st July being respectively 355,789 cwts. and 441,518 cwts. The total quantity landed was 610,522 cwts., valued at £474,876, as compared with 730,104 cwts. and £549,711 in the preceding year. The decrease in quantity is referable almost wholly to Aberdeen, where the trawl landings fell short of those of 1913 by 111,511 cwts., or 26 per cent., as at Leith, which ranks second to Aberdeen as a trawling centre, the landings were practically identical with those of 1913, while the total quantity landed by liners increased from 85,000 cwts. to 100,000 cwts. This increase, again, was due to the rapid development which is taking place in motor line-fishing, and it is not improbable that small-line fishing, which as an industry was becoming moribund, is destined to take a new lease of life with the advent of the motor. During the year under review the contribution from this source amounted to 28,291 cwts., valued at £27,734—an increase of 18,011 cwts., or 175 per cent. in quantity, and of £17,094, or 161 per cent. in value, as compared with the figures for 1913. The major part of the increase occurred in Montrose, Leith, and Shetland districts, where the fishermen have been quick to realise the possibilities of the motor boat in this connection. On the other hand, sailing liners find it a difficult matter to earn an adequate livelihood, and their contribution fell from 74,000 cwts. to 71,000 cwts. during the year.

The most striking feature of the haddock fishing in 1914 was the extraordinary abundance of small haddocks during the latter half of the year. These very small haddocks are known in the trade under various names—"seed" haddocks, "ping-pongs," etc.—and so abundant were they that at Granton, for example, they frequently constituted from two-thirds to three-fourths of the entire landings of the trawl fleet. It is an interesting fact that this plethora of small haddocks was predicted so far back as November 1913 by the observers on board the research steamer *Goldseeker*, who based their conclusion on the large numbers of small haddocks, ranging in size from 14 cms. to 20 cms. ($5\frac{1}{2}$ –8 ins.), which were found escaping through the meshes of the ordinary trawl net, to be caught in the net of much smaller mesh with which the cod end of the ordinary trawl is enveloped for experimental purposes, and whose scales showed that they were not yet a year old. This conclusion was confirmed by hauls made six months later, when small haddocks, whose average size lay between 19 cms. and 20 cms., were obtained in extraordinary numbers. An examination of the scales of these haddocks showed that they were all of one year's spawning, and had been hatched in the spring of 1913, and the inference was clear that the spawning conditions for haddocks in 1913 had been exceptionally favourable. We have therefore good reason to anticipate that the next few years will constitute, in so far as the haddock is concerned, one of the periods of abundance which the records show to alternate with periods of dearth in this fishery.

During July and August large quantities of these small fish were thrown back into the sea after each drag by trawl skippers, as they were considered unsaleable, while of those brought ashore 1812 cwts. were sold as manure, but when the scarcity which followed upon the outbreak of hostilities set in, they rapidly appreciated in value, until

on occasion as much as 30s. per box was being realised for fish which, in a normal year, would be sold at from 1s. 9d. to 2s. 6d. per box—if, indeed, they would not have been actually unsaleable.

The average price per cwt. realised over the whole year was 15s. 7d., as compared with 15s. 1d. in 1913, and 12s. 1d. in 1912.

Cod.

The total catch of cod in 1914 was 1,064,459 cwts., valued at £548,970, as compared with 1,233,449 cwts., and £583,451 in the preceding year. It will thus be seen that this species alone accounted for 41 per cent. of the quantity and 40 per cent. of the value of all the round fish landed during the year. The percentages of the total catch attributable to the three methods of capture in vogue were, by trawl, 78 per cent. ; by lines, 17 per cent. ; and by nets, 5 per cent., these proportions being almost identical with those for 1913, the only difference being that the trawlers' share increased by 1 per cent. at the expense of the quantity taken by nets. Cod-net fishing, largely owing to the adverse weather encountered in the Moray Firth in the spring, was considerably less successful than in the preceding year, the quantity taken by this means having fallen from 72,000 cwts. to 54,000 cwts.

Of the trawl catch, 355,702 cwts., or 43 per cent., was landed by foreign trawlers, chiefly German. These figures, of course, represent the result of only seven months' work on the part of these vessels, and afford a good indication of the prominent position which had been attained by them in the Scottish fishing industry when war broke out.

The average price per cwt. throughout the year was 10s. 4d. as compared with 9s. 5½d. in 1913.

Ling.

Of ling, 210,384 cwts., valued at £78,627, were marketed during the year under review, these figures being only 3 per cent. and 1 per cent. respectively under those for 1913. This fish is still taken principally by line, although of recent years an increasing proportion has been landed by trawlers. In 1914, however, the line fishermen regained some of the ground lost in the preceding year, the percentage of the total catch credited to them having increased from 57 to 62. The improvement was, however, due almost wholly to the greater success of the steam liners, whose contribution increased from 102,654 cwts. to 120,542 cwts., whereas that of the sailing liners fell from 19,298 cwts., to about one-third of that quantity. The catch of the motor-liners (2221 cwts.), although comparatively insignificant, represents an increase upon the preceding year's figures of over 100 per cent.

The average price per cwt. realised during the year was 7s. 5½d., or 1½d. more than in 1913.

Whittings.

The catch of whittings, which amounted to 224,890 cwts., was 1145 cwts. in excess of that of 1913, and this is the more remarkable when it is recalled that the 1913 catch was in its turn 29 per cent. in advance of that of 1912, and 50 per cent. greater than the average for the preceding five years. It seems evident from these figures that

whittings have been increasing in abundance in recent years, and this would suggest that, as in the case of haddocks previously referred to, an unusually large addition was made to the stock some seasons back.

The increase was due to the greater success of the small-line fishermen, particularly in Banff district, as the trawl catch, which amounted to 208,162 cwts., was about 2000 cwts. less than in the preceding year.

The average price per cwt. throughout the year was 12s. 1d., as compared with 9s. 5d. in 1913, and the value consequently shows the large increase of £30,706, or 29 per cent., the figures for 1914 and 1913 being respectively £135,885 and £105,179.

Saithe, Torsk, and Conger Eels.

The total quantity of saithe landed was 340,879 cwts., which, although 70,000 cwts. less than the catch for 1913, is 35 per cent. greater than the average for the five years 1909-1913. Of this quantity 272,273 cwts. is referable to trawls, 49,104 cwts. to lines, and 19,502 cwts. to nets, the latter figure representing an increase upon the net-catch in 1913 of 8087 cwts.

Notwithstanding the large decrease in quantity, the value, which amounted to £78,050, was only £441 less than in 1913, the average price per cwt. realised having advanced from 3s. 10d. to 4s. 7d.

Of torsk, 18,503 cwts., valued at £7901, were landed, as compared with 17,365 cwts., and £6364 in the preceding year. This fish is landed chiefly by the steam liners which work from Aberdeen, and these vessels accounted for 71 per cent. of the total.

The catch of conger eels, which amounted to 26,627 cwts., shows the relatively large increase of 4684 cwts., or 21 per cent., while the value increased from £9960 to £11,683. This species is taken principally on the West Coast by steam liners and motor boats working from Mallaig, and the increase was almost wholly due to the improved catch of the fleet which operated from that port.

Hake, Gurnards, Catfish, and Monks.

Hake were also more plentiful in 1914, 27,844 cwts., valued at £22,083, having been landed, as compared with 18,914 cwts., valued at £15,869, in the preceding year. About 90 per cent. of the catch of this species is taken by trawlers, and the increased landings were mainly due to the great success achieved by the section of the Aberdeen fleet which operated during June off the Orkneys. These vessels obtained some phenomenal catches for that season, with the result that the landings at Aberdeen for that month amounted to 5725 cwts., or more than five times as much as in June 1913. Some exceptionally fine shots were also obtained in the spring off South Rona by the fleet of steam liners working from Mallaig.

The increased supply had the effect of easing prices somewhat, and the average price per cwt. (15s. 10d.) was 11d. less than in the preceding year.

Gurnards, catfish, and monks are the least valuable of the round-fish, and the aggregate catch of the three species, which amounted to 61,906 cwts., realised only £16,523, the corresponding figures for 1913 being 61,354 cwts. and £15,720. All three species realised slightly higher average prices than in 1913.

(b) *FLAT FISH.*

The total quantity of flat fish landed was 196,394 cwts., valued at £356,396. In respect of quantity, this is the smallest total since 1907, but the value again constitutes a record, exceeding that established in the preceding year by £15,551, or 4·6 per cent. The percentages of the catch referable to trawl, line, and net fishing respectively were 70, 25, and 5, as compared with 70·5, 26, and 3·5 in 1913. It is interesting to note that of the three species which show increased landings, viz., turbot, plaice, and dabs, two—turbot and plaice—are fish the supplies of which have been steadily diminishing in recent years. This falling-off had, indeed, been so marked in the case of plaice that concerted international action had been projected with a view to conserving this fishery, and the substantial increase recorded in the returns for 1914 is therefore welcome, not only in itself, but also as suggesting that the stock has not been so depleted as the returns of recent years would indicate.

Plaice.

This fish, which in 1913 lost for the first time the position it had so long held as the principal contributor to the flat-fish supply, regained it during the year under review. The catch amounted to 53,680 cwts., valued at £90,282, these figures representing an increase in quantity of 7520 cwts., and in value of £18,681 upon the returns for 1913. The increase is confined to the trawl and net landings, which were respectively 37,685 cwts. and 6697 cwts., as against 30,804 cwts. and 4978 cwts. in 1913, the catch by line having fallen from 10,378 cwts. to 9298 cwts. Notwithstanding the increased supply, plaice advanced in value during the year, the average price per cwt. working out at 33s. 8d., as compared with 31s. in 1913.

Halibut.

Halibut, with a catch of 46,512 cwts., valued at £110,089, takes the second place in the flat-fish returns as regards quantity, although in point of value it is easily first. As compared with the returns for 1913, there is a decrease in quantity of 2433 cwts. and in value of £1460, of which the former is referable mainly to trawling, and the latter wholly so, as the quantity taken by line, although less than in 1913 by 332 cwts., realised £4181 more. Line fishing (chiefly by steamers) is still the principal method of capturing halibut, and the quantity taken by this means in 1914 was 33,797 cwts., which realised £81,121, or 73 per cent. and 74 per cent. respectively of the whole.

The average price per cwt. realised for halibut during the year was £2, 7s. 4d., as compared with £2, 5s. 7d. in 1913.

Lemon Soles.

The quantity of lemon soles landed in 1914 was 33,790 cwts., which realised £83,173, as against 36,696 cwts., valued at £83,472, in the preceding year, from which it will be seen that, from the fishermen's point of view, the shortage in quantity was compensated for by the enhanced prices obtained. Lemon soles are taken almost exclusively by trawlers, and all but 345 cwts. of the catch was landed by these vessels.

Flounders.

Of flounders, 7488 cwts., which realised £5919, were landed—a decrease in quantity of 751 cwts., but an increase in value of £394 as compared with the preceding year's returns. These fish are taken principally by means of small lines, set-nets, and seine-nets, and in 1914 the catch was referable to these methods of capture in the ratio of, roughly, $3\frac{1}{2} : 2\frac{1}{2} : 1$.

Dabs, Whitches, and Megrim.

The quantity of whitches and megrims landed (all but 21 cwts. of which was taken by trawlers) was 39,361 cwts., valued at £48,728, or 9579 cwts. and £2884 less than in 1913. The greater part of the decrease in quantity, and the whole of the decrease in value, were referable to whitches, the value of megrims (£23,313), in spite of a decline of nearly 1000 cwts. in the catch, being £990 more than in 1913.

The returns relating to dabs show an increase of 1207 cwts. in quantity and £1169 in value, 11,114 cwts., valued at £5208, having been marketed during the year, of which trawlers accounted for 8664 cwts., and sail and motor liners for the remainder.

Turbot and Brill.

The decline which has been in progress since 1909 in the catch of turbot was arrested during the year under review, 4005 cwts. having been landed, as compared with 3791 cwts. in 1913. Prices were, however, considerably easier throughout the year (the average price per cwt.—£3, 0s. 9d.—was about 6s. less than in 1913), with the result that the fishermen did not benefit financially through the increased catch, the aggregate value of which—£12,171—was £454 less than in the preceding year.

An incident which is perhaps worthy of record was the landing at Aberdeen of a turbot which measured 3 ft. 1 in. in length and 2 ft. 9 in. in breadth. This specimen weighed $60\frac{1}{2}$ lbs., which was 15 lbs. in excess of the previous record.

Of brill, 444 cwts., valued at £826, were landed, as against 208 cwts. and £422 in 1913.

(c) SKATE, SQUIDS, AND UNCLASSIFIED FISH.

There was a substantial increase in the quantity of skate landed during the year under review, the figures for 1914 and 1913 being respectively 149,648 cwts., and 135,498 cwts. Over 90,000 cwts. were captured by liners, of which the steamers' share was 78,575 cwts., and about 58,000 cwts. by trawlers, the small residue having been taken in set-nets. Proportionately, the value shows a larger increase than the catch, as this fish realised on an average 6s. per cwt. in 1914, as compared with 5s. 3d. per cwt. in the preceding year, and the total sum realised, viz., £44,983, represents an increase of nearly 26 per cent. upon the figure for 1913.

Of squids, 161 cwts., valued at £32, were landed as compared with 28 cwts. and £3 in 1913. These molluscs were brought in by trawlers, and were purchased for bait.

Unclassified fish consist of lythe, pollack, bream, etc., and the total quantity landed amounted to 16,791 cwts., valued at £2964, or 6791 cwts. and £813 less than in the preceding year. About 50 per cent. of the catch was brought in by foreign fishing vessels.

SUMMARY SHOWING CATCH AND VALUE DURING PAST TEN YEARS.—
The following table shows the catch and value of fish (exclusive of shell-fish) taken by the different methods of fishing since 1905 inclusive :—

YEARS.	(1) *HERRINGS, ETC.			(2) ROUND-FISH.					
	Net and Trawl.			Line and Net.			Trawl.		
	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.
1905	5,375,225	1,352,421	5/	619,194	274,754	8/10	1,563,247	729,822	9/4
1906	5,016,220	1,661,178	6/7	601,033	282,144	9/5	1,683,335	722,680	8/7
1907	6,321,211	1,814,330	5/9	529,962	262,817	9/11	1,874,411	754,849	8/1
1908	5,728,157	1,161,111	4/1	670,946	264,274	7/11	1,910,038	756,569	8/
1909	4,592,457	1,583,296	6/11	667,432	248,639	7/5	1,828,570	735,471	8/1
1910	5,741,057	1,609,048	5/7	712,099	272,159	7/8	1,898,014	875,478	9/3
1911	5,120,658	1,520,035	5/11	779,232	292,907	7/6	2,235,177	886,970	7/11
1912	5,255,307	1,922,204	7/4	777,883	302,090	7/9	2,197,014	1,002,400	9/2
1913	4,532,093	2,100,619	9/3	617,876	277,931	9/	2,316,437	1,166,368	10/1
1914	4,491,313	1,634,534	6/1	601,159	309,215	10/3	1,984,855	1,065,383	10/9

YEARS.	(3) †FLAT-FISH.			(4) ‡SKATES, SQUIDS, AND UN-CLASSIFIED FISH.					
	Line and Net.			Trawl.			Line and Net.		
	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.
1905	111,041	72,961	13/2	177,472	216,443	24/1	5,419	895	3/4
1906	46,431	59,644	25/8	137,496	220,267	32/	61,388	18,887	6/2
1907	54,043	69,432	25/8	136,502	218,705	32/1	51,601	16,797	6/6
1908	71,072	93,423	26/3	128,843	203,491	31/7	82,666	21,382	5/2
1909	66,568	86,152	25/11	144,966	207,433	28/7	76,519	17,761	4/8
1910	64,847	95,178	29/4	145,937	215,297	29/6	89,621	21,026	4/8
1911	71,917	110,495	30/9	145,954	213,541	29/3	101,059	23,317	4/7
1912	65,299	107,115	32/10	136,743	215,498	31/6	95,925	24,982	5/3
1913	59,342	100,973	34/	143,544	239,872	33/5	77,141	21,722	5/8
1914	59,085	106,604	36/1	137,309	249,792	36/5	97,377	29,320	6/

TOTALS.									
YEARS.	(1) Total taken by Net and Line.			(2) Total taken by Trawl.			(3) §Total quantity and value of all Fish landed.		
	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.
1905	6,110,879	1,701,031	5/7	1,745,431	948,117	10/10	7,856,310	2,649,148	6/9
1906	5,722,852	2,020,585	7/1	1,870,517	957,008	10/3	7,593,369	2,977,593	7/10
1907	6,956,817	2,163,376	6/3	2,061,336	985,751	9/7	9,018,153	3,149,127	7/
1908	6,552,841	1,540,190	4/8	2,092,411	971,972	9/3	8,645,252	2,512,162	5/10
1909	5,402,976	1,935,848	7/2	2,020,209	953,259	9/5	7,423,185	2,889,107	7/9
1910	6,607,624	1,997,411	6/1	2,102,031	1,102,976	10/6	8,709,655	3,100,387	7/1
1911	6,072,866	1,946,754	6/5	2,439,108	1,113,820	9/2	8,511,974	3,060,574	7/2
1912	6,194,414	2,356,391	7/7	2,392,692	1,232,193	10/4	8,587,106	3,588,584	8/4
1913	5,269,068	2,492,369	9/6	2,559,282	1,432,991	11/2	7,828,350	3,925,360	10/
1914	5,239,852	1,805,194	6/11	2,200,469	1,338,313	12/2	7,440,321	3,143,507	8/5

* Include sprats, sparlings, and mackerel, returns of which are immaterial.

† Skate, which scientifically are not classed amongst flat fish, were also included up to and including 1905. As this fish is of much smaller value than the other fish included, the average price of flat-fish was thus considerably lowered, but in 1906 this disturbing factor was removed by the inclusion of skate in another column.

‡ Comprise principally sillocks, lythe, and bream in 1905. From 1906 onwards skate are included.

§ Exclusive of shell-fish.

Note.—Round fish now comprise certain species of fish formerly included under "Un-classified Fish."

(d) SHELL-FISH.

Judged by the financial yield, the shell-fish fisheries were prosecuted with very indifferent success in 1914. Compared with the returns for the preceding year, the aggregate value, which amounted to £65,029, shows a falling off of £7328, or 10 per cent., and an examination of the records reveals the fact that the year's operations were the least lucrative since 1889—a period of a quarter of a century! The principal cause of the decrease was the depressed state of the market for lobsters which followed upon the outbreak of war, although the decreased yield of the crab and oyster fisheries was also responsible in a large degree. Of the total value, the East Coast contributed 38 per cent., Orkney and Shetland 9 per cent., and the West Coast 53 per cent., as compared with 35, 10, and 55 per cent. respectively in the preceding year.

Lobsters.

Owing to the cutting off of the Hamburg market, to which a large proportion of the Scottish lobster catch was wont to be consigned, and to the falling off of the demand in the home markets consequent upon the tendency which manifested itself to eschew luxuries, the lobster fishery was severely hit by the war, and for a time in the autumn the proceeds of consignments sent to the English centres fell as low as 2d. per lobster, as compared with the normal average of 1s. The result of this is seen in the returns, which show a decrease in both catch and value, the output for 1914 amounting to 6776 hundreds, which realised £31,934, as compared with 6811 hundreds and £36,775 in 1913.

Crabs.

Crabs appear to have been somewhat scarce in Scottish waters in 1914, particularly on the East Coast where the bulk of the catch is obtained, and the returns show a falling off in number of 322,000, and in value of £1702, from those for the preceding year. The total output in 1914 was 18,919 hundreds, which realised £12,468.

Oysters.

The output of oysters shows the remarkable decrease of 611,000, or 46 per cent., the figures for 1914 and 1913 being respectively 7049 hundreds and 13,161 hundreds, while the disparity in value is equally marked, the totals for the two years being respectively £2720 and £4757. At present the Scottish oyster fishing industry is almost wholly confined to Loch Ryan, and it was consequently to the diminished productivity of these beds that the shrinkage was due.

An interesting feature of the returns is the appearance of Orkney district as a contributor to the supply. At one time oyster beds were numerous all round the coast of Scotland—those situated in the Firth of Forth were formerly the most important in Europe—and one of the most flourishing of these was situated in the Bay of Firth, Orkney.

Owing to reckless over-fishing and the absence of regulation most of these beds eventually became extinct, but in recent years the question of reviving them has been receiving serious consideration, and the first step in this direction was taken some years ago, when a company was formed whose object was the resuscitation of the Bay of Firth fishery. A short account of their operations is given in the annual report of the officer of Orkney district (Appendix L, p. 220), from which it will be seen that there is every likelihood that the enterprise will ultimately be crowned with success.

Mussels.

The total quantity of mussels gathered in 1914 was 96,655 cwts., the value of which was £5202. as compared with 78,576 cwts. and £4371 in 1913. The increased output is explained by the large demand for these molluscs as bait which set in towards the close of the year, owing to the stimulus which the premature closing of the English herring fishing season gave to small-line fishing.

Clams.

The Firth of Forth beds furnish practically all the clams landed in Scotland. In 1914 the output amounted to 7352 cwts., valued at £1093, as compared with 6853 cwts. and £1024 in the preceding year.

Unclassified Shell-fish.

The returns under this heading relate principally to cockles, shrimps, and periwinkles. The total catch amounted to 36,851 cwts., which realised £11,612—a decrease in quantity of 4223 cwts., but an increase in value of £352 as compared with 1913.

SUMMARY SHOWING CATCH AND VALUE OF SHELL-FISH DURING PAST TEN YEARS.—The following table shows the quantity and value of the different kinds of shell-fish landed in Scotland since 1905, inclusive :—

Year.	Oysters.			Mussels.			Clams.		
	100's.	Value £.	Price per 100.	Cwts.	Value £.	Price per Cwt.	Cwts.	Value £.	Price per Cwt.
1905	2,180	865	7/11	102,927	6,065	1/4	7,848	1,129	2/10
1906	3,896	1,568	8/	128,486	7,222	1/2	7,391	1,083	2/11
1907	10,203	3,456	6/9	126,453	6,334	1/2	7,197	953	2/8
1908	9,424	3,411	7/3	121,161	5,529	/11	8,633	1,264	2/11
1909	12,270	4,414	7/2	109,529	4,881	/11	7,404	1,143	3/1
1910	8,771	3,473	7/11	98,817	4,576	/11	9,947	1,501	3/
1911	11,540	4,075	7/1	103,217	5,066	1/	10,261	1,536	3/
1912	13,278	4,669	7/	99,754	5,334	1/1	8,300	1,236	3/
1913	13,161	4,757	7/3	78,576	4,371	1/1	6,853	1,024	3/
1914	7,049	2,720	7/9	96,655	5,202	1/1	7,352	1,093	3/

Year.	Lobsters.			Crabs.			Unclassified Shell-fish.			Total Value.
	100's.	Value £.	Price per 100.	100's	Value £.	Price per 100.	Cwts.	Value £.	Price per Cwt.	£
1905	7,603	36,317	95/6	19,903	11,675	11/9	54,220	14,611	5/6	70,662
1906	7,316	35,957	98/4	30,916	13,182	12/7	45,594	13,310	5/10	72,322
1907	7,149	34,950	97/9	22,176	13,774	12/5	44,749	12,737	5/8	72,204
1908	6,890	33,748	98/	27,367	16,515	12/1	49,263	13,595	5/6	74,062
1909	7,122	33,857	91/1	26,346	15,582	11/10	45,726	12,515	5/6	72,392
1910	6,977	34,795	99/9	22,071	13,831	12/6	46,540	11,684	5/	69,760
1911	6,420	32,101	100/	23,573	14,650	12/5	40,644	9,927	4/11	67,355
1912	6,466	32,177	99/6	21,361	13,704	12/10	40,528	10,474	5/2	67,594
1913	6,811	36,775	108/	22,139	14,170	12/10	41,074	11,260	5/6	72,357
1914	6,776	31,934	94/3	18,919	12,468	13/2	36,851	11,612	6/4	65,029

OPERATIONS OF SCOTTISH FISHERMEN AT ENGLISH AND IRISH HERRING FISHERIES.

The English herring fishing of 1914, as was only to be expected in the prevailing circumstances, was reduced to a mere shadow of its usual self, and only 125 vessels left Scotland to participate in it, as compared with 1163 in 1913, while their stay was of short duration. The Irish fishing also did not attract so many fishermen as in the previous year, only 129 vessels having proceeded to Irish waters as compared with 159 in 1913. The results of the operations of the two fleets are shown in the following table :—

[TABLE.]

STATEMENT showing the number of Scottish Fishing Boats employed, and the quantity and value of herrings landed by them at the English and Irish fishings.

Scottish District to which Boats Belong.	Particulars of Fishing on Coasts of England.			Particulars of Fishing on Coasts of Ireland.			Total Cwts.	Total Value.
	Boats.	Cwts.	Value.	Boats.	Cwts.	Value.		
			£			£		£
Eyemouth	16	40,190	14,928	7	3,486	1,307	43,676	16,235
Leith . . . . .	..	..	..	3	1,155	261	1,155	261
Anstruther	50	1,771	750	5	2,100	450	3,871	1,200
Montrose	14	2,149	930	..	..	..	2,149	930
Peterhead	32	51,800	13,320	2	1,316	470	53,116	13,790
Fraserburgh	1	385	94	41	14,395	4,655	14,780	4,749
Banff	3	3,570	1,277	21	10,269	3,323	13,839	4,600
Buckie	7	9,060	3,735	30	29,400	8,600	38,460	12,335
Findhorn	1	1,645	420	20	14,000	5,000	15,645	5,420
Wick	1	1,498	363	..	..	..	1,498	363
Totals 1914	125	112,068	35,817	129	76,121	24,066	188,189	59,883
„ 1913	1,163	2,488,183	763,256	159	102,074	40,572	2,590,257	803,828

As a result of the immense success which had attended the East Anglian fishings of 1912 and 1913, the most sanguine expectations had been formed regarding the prospects for 1914, and even after the outbreak of war had brought the Scottish season to an abrupt close, fishermen and curers were not without hope that they would be able to retrieve their fortunes at the English fishing. As the situation developed, however, it became clear that curing operations would almost infallibly result in further loss, and when eventually the season opened, operations were restricted to supplying the fresh herring market. To make matters worse, there came the discovery that the sea had been strewn with German mines, and after a number of vessels had been lost through coming in contact with these engines of destruction, the bulk of the fleet returned home early in November. The disappointment caused by the collapse of the fishing was accentuated by the fact that, to all appearances, herrings were on the grounds in the same abundance as in the previous year. On one occasion, for example, the average for twenty-five arrivals at Lowestoft was 140 crans, and the few boats which braved the dangers of fishing operations throughout the entire season had excellent earnings, one vessel having as much as £2700.

The Scottish fleet was composed of 109 steam, 9 motor, and 7 sailing boats, and their average earnings were respectively, £316, £102, and £61. These figures are in marked contrast with those for the previous year, which were respectively £794, £365, and £235, but the extent of the loss which was incurred through the disastrous season of 1914 may best be appreciated by comparing the value of the landings with the figures for 1913. In the latter year Scottish fishermen earned £763,256; in the year under review, £35,817.

The fleet which went to the Irish fishings comprised 112 steam, 9 motor, and 8 sailing vessels, as compared with 146 steam, 6 motor, and 7 sails in 1913. The season was an unsuccessful one, and the total catch was only 76,121 cwts., which realised £24,066, as compared with 102,074 cwts. and £40,572 in the preceding year. Earnings were in consequence low, averaging only £195, £147, and £114 for

steam, motor, and sail boats respectively, as compared with £239, £566, and £327 in 1913, and many of the boats barely cleared expenses.

FISH USED FRESH.

The estimated quantity of fish sold for consumption in Scotland in a fresh state, or dispatched fresh from Scotland to the English markets during the year 1914, will be found under Appendix C (p. 126).

Generally speaking, the proportion of the total landings which is consumed fresh shows little variation from year to year, and the fluctuation in the catch of the various species are consequently usually reflected in the Appendix under discussion. Thus, during the year under review a decline is observable in all the species which show reduced landings in Appendix B, No. II., with the exception of herrings, while an increase is seen in 10 out of the 12 varieties of which an increased catch was secured, the exceptions being torsk and catfish. The increased consumption of fresh herrings was due to the cessation of curing after the outbreak of war, as a result of which considerable efforts were made to expand the home markets, while the decreased consumption of torsk and catfish is explained by the increased demand for these fish for filleting purposes.

In all, it is estimated that 1,956,312 cwts. of fish were disposed of in a fresh state, as compared with 1,961,853 cwts. in 1913, this quantity representing 26 per cent. of the total quantity landed, as against 25 per cent. in the preceding year. The largest individual contributor was cod and codlings, which constituted 20·5 per cent. of the whole, followed by haddocks (20 per cent.), herrings (19 per cent.), flat fish (10 per cent.), skate (7·6 per cent.), and whittings (7·2 per cent.).

The extent to which the three first-mentioned species preponderate in the total landings will be realised when it is stated that although the proportion consumed fresh constitutes a mere fraction of the total catch of these species (about $\frac{1}{6}$ th) this fraction nevertheless represents 60 per cent. of the total quantity so disposed of.

FISH CURED AND EXPORTED.

I. HERRINGS.

After many years of uninterrupted progress the Scottish herring curing industry has, through the outbreak of war in Europe, received a serious check. How serious this is may be gauged from the fact that fully 90 per cent. of the total cure has for many years been disposed of in Russia, Germany, and Austria. Hostilities broke out just as the season was reaching its height, and while a fair proportion of the cure had already reached the ports of Germany and Russia, the bulk remained in the hands of the curer. The stock so remaining was about 314,000 barrels, and at the end of the year it was ascertained that about 75 per cent. had been exported to Russia and Norway and Sweden.

At 31st March 1915, this stock had been further reduced to 63,571 barrels. The industry is fortunately endowed with strong recuperative powers, as witness its recovery from the severe checks suffered (1) through the stoppage of the trade with the West Indies in the early

years of the nineteenth century, consequent on the abolition of slavery, the slaves having been fed largely on Scottish cured herrings, (2) the outbreak of hostilities with Russia in 1854, and (3) the serious financial troubles through which the trade passed in 1884 and 1887. The industry is not now subject to the same violent fluctuations as were experienced in the ante-steam drifter period, as the steamer is not bound by the same limitations in the matter of distance from fishing grounds as was the sailing vessel, and failure to secure fish on the nearer grounds can be compensated for by the discovery of the shoals in the more distant areas. Still, it behoves those engaged in the curing industry to consider whether it would not be wise to extend the field of enterprise and to cater for a wider public, as there can be no denying the fact that with the higher wages now prevailing in almost all parts of the world, the tastes of the worker will gradually become more fastidious, as witness the futility of the efforts made this winter to induce the people of Great Britain to return to their former liking for pickled herrings, and thus to relieve a deserving industry of a serious burden in the shape of stocks of herrings, the comparatively limited market for which was for the time being closed. On the Continent a large and growing trade has been developed in tinning herrings and in putting them up as *delicatessen* goods, and the bulk of the fresh fish used for this purpose is imported. The district which has made this trade practically its own lies in the vicinity of Altona, where there are a large number of establishments doing a prosperous business, but other German ports are fast following the lead. The business is well organised, and the fishermen of all the countries bordering on the North Sea and on the Baltic Sea are drawn upon for the necessary supplies at different seasons of the year.

The number of persons engaged in the Scottish herring curing industry in 1914 was computed at 35,500, and these embraced curers, coopers, gutters, packers, labourers, carters, and seamen engaged on carrying vessels. Some idea of the extent to which our coast population are dependent on the curing industry may be gained when it is stated that the number of women employed as gutters and packers was 13,800, while their earnings for the limited season in Scotland amounted to £166,700, and for the very short and reduced season in East Anglia, to £9336, or a total of £176,036. The districts from which the girls hailed in greatest numbers were the Lewis (2720, and earnings £45,400), Peterhead (1626, and £17,569), Fraserburgh (1425, and £14,250), Shetland (1159, and £18,135), Buckie (1063, and £11,693), Orkney (1032, and £12,923), Wick (965, and £8260), and Barra (819, and £8563).

During the course of the season an unfortunate strike occurred among these women, which placed the curers in an awkward predicament for a time. The dispute arose out of the keenness of the demand for gutters, and an increase of 2d. per barrel, or 25 per cent., was asked for. Unfortunately, those who had already contracted to give their services on the old terms also demanded improved terms, but eventually the Women's Union representative intervened, and work was resumed.

The success which had attended the operations of the curers during the years 1912 and 1913—particularly in England—induced a certain number of fishermen to embark on that branch of the industry, but it is feared the experiment was a disastrous one owing to the outbreak of war.

The total quantity of herrings cured in pickle or otherwise was 1,384,528 barrels, as against 1,616,426 barrels in 1913, the decrease being due, as previously stated, to the outbreak of war. Of this total the districts from Eyemouth to Wick inclusive accounted for 702,271 barrels, Shetland and Orkney for 449,464 barrels, and the West Coast districts for 232,793 barrels.

Shetland district once more took the lead in the returns, contributing 335,985 barrels, the other districts succeeding in the following order, Peterhead (201,928), Fraserburgh (191,984), Stornoway (176,904), Wick (153,215), and Orkney (113,479).

The kippering industry again showed an improving tendency, the quantity so cured being equal to 176,814 barrels, the districts responsible for nearly one-half of the total being Eyemouth (46,144) and Stornoway (37,329) (Appendix D, No. I., p. 127).

The tinning industry exhibited a decline from 49,952 barrels in 1913 to 46,731 barrels in 1914, more than one-half of the total being contributed by Aberdeen. Seven firms were engaged in the industry at that port, and supplies (which were naturally short after July) were received from all parts of the Scottish coast, and also from Yarmouth. The volume of the trade is largely regulated by the market price of the fresh fish, as once this rises beyond 25s. a cran the margin of profit is insignificant, the expenses of preparation being pretty considerable. The fish is put up in both oval and square tins, containing tomato sauce, and each tin is examined by a Board of Trade official. If found satisfactory an official label with the date of examination perforated thereon is affixed to the tin. The introduction of a new machine for the sealing of the tins—the soldering of which was formerly done by hand—has enabled the packers to dispense with the labour of 30 tinsmiths. The output of the machine is 20,000 tins per day. The principal distributing centre is London, but exports are also despatched from Glasgow.

The estimated value of the herrings cured in 1914 (Appendix E, No. IV., p. 138) was £2,082,382, or £832,329 less than in 1913. The following table gives the values from 1899 to 1914 inclusive:—

Year.	East Coast.	Orkney and Shetland.	West Coast.	Total.	Average Price per Barrel.
					s. d.
1899	£835,956	£507,512	£370,450	£1,713,918	29 2
1900	823,106	542,099	299,469	1,664,674	26 7
1901	739,905	686,965	277,920	1,704,790	21 3
1902	1,235,617	577,531	300,886	2,114,034	23 5
1903	1,005,328	510,023	272,073	1,787,424	22 1
1904	891,841	689,439	234,819	1,816,099	17 7 $\frac{1}{2}$
1905	939,684	641,855	247,875	2,229,414	21 1 $\frac{1}{2}$
1906	1,329,086	1,985,670	230,586	2,545,342	25 5 $\frac{3}{4}$
1907	1,641,934	730,652	257,091	2,629,677	20 4 $\frac{3}{4}$
1908	1,045,411	736,952	283,714	2,066,077	18 9 $\frac{1}{2}$
1909	1,358,802	728,917	281,336	2,369,055	25 0 $\frac{3}{4}$
1910	1,482,356	864,023	264,923	2,611,302	22 5
1911	1,320,988	827,960	242,034	2,390,982	23 4 $\frac{1}{2}$
1912	1,471,336	981,933	327,862	2,781,131	31 9
1913	1,789,499	643,717	481,493	2,914,711	36 0 $\frac{1}{2}$
1914	1,084,668	591,385	406,329	2,082,382	30 1

Appendix D, No. II., gives some idea of the development of the industry since 1811.

The total number of barrels of herrings exported was 1,094,845, a decline of 316,092 from the return for 1913 (App. E, No. II., p. 134).

This substantial decline is, of course, attributable to the enforced stoppage of curing operations, one of the two important channels for distribution—Germany—being absolutely closed, and the other—Russia—being only partially open. The routes still open to Russia, after the closing of the Baltic ports, were (1) the sea passage to Archangel up to the date when this was blocked by ice, and from Archangel by a single narrow gauge railway to Vologda; (2) the sea route to Trondhjem and thence by railway over Norway and Sweden to Tornea on the Russian border, where 20 miles of road have to be traversed before goods can be placed on a Russian railway, and (3) the sea passage to Bergen and thence by rail to Gefle, and the railway ferry to Finland. The expenses in respect of freight, railway charges, &c., on the two latter routes are very heavy and militate largely against any prospect of developing trade by them, while as regards Archangel, the services of an ice-breaker from Canada had to be requisitioned in order to keep the route open as long as possible. Then, unfortunately, a fair proportion of the herrings which reached Archangel did not get any further owing to the congestion on the railway, and in all probability they will not arrive at their destination for some months yet.

The quantity exported to Germany naturally shows a considerable shrinkage, the figures for 1913 and 1914 being 673,000 and 353,000 respectively, and even that sent to Russia exhibits a pretty large fall, from 620,000 to 493,000 barrels. The export to America, on the other hand, increased by about 10 per cent. to 115,347 barrels.

The following table shows the export to Russia and Germany direct during the last ten years, viz. :—

Year.	Germany.	Russia.
1905 . .	1,057,315	430,554
1906 . .	1,025,886	424,200
1907 . .	1,186,100	627,100
1908 . .	1,001,645	616,497
1909 . .	786,682	574,307
1910 . .	982,361	732,345
1911 . .	794,219	655,814
1912 . .	719,013	750,187
1913 . .	672,701	619,680
1914 . .	353,323	493,039

The principal feature in the Appendix (E, No. III.) was the re-appearance after some years' absence of Archangel, the exports to that port being 85,399 barrels. It is also interesting to note the marked increase in the export to Norway and Sweden, the figures for 1914 and 1913 being 102,500 and 1400 barrels respectively.

II. COD, LING, HADDOCKS, &c.

The number of kinds of fish other than herrings now cured or preserved is very large, embracing practically all the various species of round fish. The particulars will be found in Appendix D, No. I. (p. 128).

The total quantity amounted to 544,296 cwts., a decrease of 117,000 cwts. as compared with the returns for 1913. The largest contributors to the total were cod (223,405), haddocks (104,379), saithe (96,718), ling (42,305), and whittings (41,708 cwts.), and with the exception of ling all these show substantial declines. The bulk of the fish cured dried are caught in Icelandic waters, and the vessels hitherto engaged have, in so far as Scotland is concerned, been of German ownership, so that on the outbreak of war the supply was practically stopped.

The fish are mostly dried by hot air and coke fires, and when suitable weather conditions prevail they are partly sun dried and finished off at coke fires. The cod, ling, and saithe taken in 1914 were thinner and of smaller size than in 1913, averaging from 2 to 3 more fish to the cwt.

In so far as Aberdeen is concerned, the filleting of fish has expanded very rapidly of recent years, and if the same rate of development is maintained it will soon become the principal branch of the white-fish curing industry. Fish of all varieties are utilised, even Norway haddocks and bream, which were formerly converted into manure, being now filleted and preserved. The process consists of dipping the fish in a vegetable dye (*Annatto*) which gives them the appearance of having been lightly smoked, and is much less expensive than the old system of hanging the fish in smoking kilns. If intended for exportation the fish are packed in boxes of 15 lbs. weight.

Curing of cod roes for use as bait in the French sardine fisheries was not carried on to the same extent as in 1913, the stock from the previous year not having been exhausted. In 1913, 2840 barrels, valued at £6250, were disposed of, but in 1914 the figures had fallen to 1830 barrels and £3840 respectively. Many of the German trawlers which had hitherto disposed of the roes at Aberdeen now sent them to Hamburg *via* trading steamer, or transhipped them on the fishing grounds into trawlers going direct to German ports from Iceland.

Only one schooner's cargo of 790 barrels was exported direct to Brittany, the remainder being sent *via* London.

The following figures show the totals of the principal kinds cured since 1903, viz. :—

Year.	Cod.			Ling.		Tusk.		Saithe.		Haddocks.				Mack- erel.
	Cwts. Dried.	Cwts. Smoked.	Barrels Pickled.	Cwts. Dried.	Cwts. Smoked.	Cwts. Dried.	Cwts. Smoked.	Cwts. Dried.	Cwts. Smoked.	Cwts. Smoked.	Cwts. Dried.	Cwts. Pickled.	Barrels Pickled.	
1903	48,626	23,396	1,290	10,137	5,000	1,601	..	15,272	..	381,156	..	6,549	..	..
1904	60,693	110,737	2,147	15,714	2,000	2,019	..	18,831	..	386,604	6,809	6,549	830	..
1905	65,709	154,353	2,200	21,102	15,290	3,395	1,378	19,406	15,960	340,433	11,709	..	1,473	..
1906	81,967	124,522	1,741	14,322	12,500	1,993	525	13,983	18,000	292,582	13,512	626	1,389	..
1907	60,766	123,985	1,256	12,748	10,400	1,035	1,220	10,753	19,200	365,797	12,110	..	1,390	..
1908	102,527	127,479	1,157	36,239	6,700	2,745	3,990	19,431	25,570	384,985	14,863	216	1,487	..
1909	95,508	109,537	1,920	32,282	3,320	1,768	3,150	15,387	30,150	279,054	5,172	..	2,153	..
1910	100,733	112,636	1,165	41,414	3,990	3,004	2,870	19,095	31,920	240,429	5,692	107	2,568	..
1911	121,465	113,888	1,252	45,266	2,980	5,370	1,110	21,738	32,350	251,128	9,057	..	2,738	..
1912	180,859	138,107	4,540*	37,972	2,100	4,166	1,200	35,991	40,600	225,127	8,408	..	8,700*	..
1913	161,722	120,733	3,279*	38,810	1,950	4,164	550	66,523	55,360	120,124	13,347	..	5,266*	..
1914	165,911	55,718	1,726*	39,571	2,450	2,952	2,470	53,002	43,700	93,379	9,950	..	6,461*	..

* Cwts.

The value of fish other than herrings cured and preserved was £781,171, being nearly a quarter of a million pounds less than in

1913, while the grand total value of all fish cured was £2,863,553—a decline of £1,076,589 as compared with the return for 1913 (Appendix E, No. IV., page 139).

East Coast districts contributed £1,838,471, Orkney and Shetland £607,332, and West Coast districts £417,750 towards the total.

BY-PRODUCTS.

The wealth which may lie hidden in the once-neglected waste products of industry—awaiting only the application of appropriate methods of extracting it—is now universally recognised, and not the least important of the industries which have grown up as a result of this recognition is the conversion of fish offal into various articles of commercial value.

The principal products derived from fish offal are oil, fish-meal, and manure. Oil is of two grades—medicinal and industrial—the first being extracted from perfectly fresh cod-livers only, while industrial oil is obtained from stale livers, intestines, etc. The latter enters into a great variety of industrial processes. It is very largely used in the leather-carrying trade, in steel-tempering and screw-cutting, as a body for paints for open-air surfaces, in the textile trades, for lubricating machinery, etc., while the stearine, or solid residue left after refining, is used by soap manufacturers, for sizing yarns, and various other technical purposes. Fish manure is used chiefly as a fertiliser in beet growing, although it is also used in other branches of agriculture. The meal is used for feeding swine and cattle. Other by-products of minor importance are isinglass, which is made from the sounds or swimming bladders, and is used for clarifying fermented liquors, and fish glue.

In common with every other branch of the fishing industry, the one under discussion was adversely affected by the war, not only because the supply of raw material was seriously curtailed, but because of the cutting off of the German market, which previously absorbed the bulk of the output of fish-meal and manure. The elimination of this market at once caused a heavy fall in prices, particularly in the case of fish-meal, which for the remainder of the year was disposed of as fertiliser, principally to the United States of America, at a reduction in price of about 33 per cent.

This industry is largely concentrated in or near Aberdeen, where twelve factories—about half of the total number in Scotland—were in operation during 1914. Four of these were engaged in manufacturing meal and manure, and the remainder in producing oil, and as they are the only establishments regarding whose output it has been possible to obtain reliable figures, the following particulars apply only to Aberdeen.

The approximate quantity of fish-meal and manure manufactured during the year was 7500 tons, valued at about £60,000, as compared with 6500 tons and £52,000 in 1913. Prior to the outbreak of war the selling price of fish-meal stood at £9, 7s. 6d. per ton, f. o. b., but, as has been explained, the closing of the German market caused it to fall to £6, 5s.

Of oil about 1900 tons were produced, the estimated value of which

was £31,000. The value of the output in 1913 was calculated at £33,400, and the decline from that figure was due solely to the diminished and irregular supply of livers obtainable, as the price of oil was not sensibly affected by the war. Three firms confined themselves to the manufacture of medicinal oil, and the remaining five to industrial oil.

Up to 1st August, the prices paid by the factories for the raw material were as follows :—for hard offal (heads and bones), from 20s. to 25s. per ton, and for soft offal (guts, etc.) 17s. 6d. per ton. Thereafter only 10s. per ton was paid for the former, and for the latter 7s. 6d. In 1913 the prices paid were respectively from 22s. 6d. to 28s. 6d., and 11s.

PERSONS ENGAGED IN THE SCOTTISH SEA FISHERIES AND ALLIED INDUSTRIES.

The numbers of persons employed in connection with the Scottish sea fisheries in 1914, classified according to the several branches of the industry in which they were engaged, are shown in Appendix F, No. I. (p. 142). The total for the industry was 87,119, being a decrease of 3591 as compared with the preceding year. The decrease occurred almost wholly among persons engaged in carrying fish and curing material by sea, and is directly attributable to the disorganisation caused by the war.

Of the total number to whom the fisheries afford permanent or occasional employment, between 40 and 50 per cent.—37,594 in 1914—are directly engaged in fishing operations. Although the fishing population as a whole has been almost stationary for a number of years, it has not been so as regards particular districts, and a decrease of 668 fishermen since 1913 is more than accounted for by a steady change which is taking place in Shetland, where many of the small landholders, under changed conditions of land tenure, and from other causes, find that they are now able to support themselves on the produce of their holdings alone, and are gradually abandoning the sea. On the other hand, there has been a tendency to centralisation at the trawler port of Aberdeen, and the drifter ports from Peterhead to Lossiemouth, where the fishermen now number 14,291, as compared with 10,545 ten years ago. Shetland and Stornoway continue to contribute the greatest numbers of any individual Districts ; but the fishermen of those Districts are nearly all landholders, who engage in fishing only incidentally or as hired hands on East Coast drifters. Of the total number of fishermen 58, 17, and 25 per cent. are referable to the East Coast, Orkney and Shetland, and the West Coast respectively ; 20,000 of the fishermen are engaged on sailing drifters and smaller craft, 11,500 on steam drifters and liners, 3000 on trawlers, and nearly 3000 on motor boats of all sizes. The three latter classes are increasing at the expense of the first.

Persons engaged in curing operations are numerically next in importance, although the greater proportion of them are gutters engaged only during the summer and autumn while the herring fishings are in progress. A reflection of the successful fishings of recent years is seen in the increase—amounting to 7 per cent. in 1914—again recorded in the number of coopers, while the number of gutters

employed was only 1 per cent. under the number for 1913. Forty-one per cent. of the total engaged in curing is returned from the Aberdeenshire ports; ten years ago the proportion was 32 per cent. The number of gutters proceeding from the crofting districts is on the other hand decreasing.

The building of fishing-vessels gave employment to 2666 persons, as compared with 2403 in 1913, of whom 73 per cent. were engaged at Aberdeen, which specialises in the construction of steam trawlers. Elsewhere boat-building affords only intermittent employment, except at the Moray Firth ports of Fraserburgh, Banff, and Buckie, from whose yards the majority of the steam drifters built in Scotland are turned out.

The number of nets used in the fisheries is steadily increasing, and, in spite of the extent to which machinery is now employed in their manufacture, the number of persons which the industry employs is also growing, being now 2418, as compared with 1613 ten years ago, an increase of 50 per cent.

Attention may be drawn in passing to the great extent to which manual labour is still employed in fishing and fish-curing and in the allied industries: the process of gutting and packing, for instance, is still performed entirely by hand. In a number of industries, however, the use of machinery has resulted in much economy of labour coincidentally with increased production, and this requires to be borne in mind in considering the numbers engaged in connection with the fisheries over a period of years.

The mechanical propulsion of vessels, and the haulage of nets and lines by the steam capstan have enabled a practically constant number of fishermen to bring a steadily increasing catch to port. In barrel-making, again, the supply must have fallen short of the requirements in recent years, with the usual accompaniment of a rise in prices, but for the greatly increased output which the employment of machinery has rendered possible.

As is well known, a large number of the Scottish fishermen were attached to the Royal Naval Reserve, and were mobilised on the outbreak of war: others joined the service subsequently, so that at the end of the year well over 4000, or 12 per cent. of the total adult male fishing population, were on active service in the Navy alone; while about the same number were engaged on board patrol vessels acting under Admiralty orders, or in mine-sweeping. At the same time, over 1000 had enlisted in the Army. The mercantile marine, general labouring work, such as coaling, at Naval bases, and miscellaneous employments had each absorbed about 500 more; so that, in spite of the restrictions imposed on fishing, only a fraction of 1 per cent. of the fishermen were unemployed at the end of 1914.

From the other classes of male workers connected with the fisheries somewhat less than 200 had joined the Navy, and about 1500 the Army, while nearly 1000 had found temporary employment in other occupations. Throughout the industry, excluding the female workers, it is gratifying to note that cases of actual want of employment as the year closed amounted to only about one-half per cent.; of the female workers very few are in any case employed at that season.

BOAT-BUILDING.

Owing to the unparalleled success of the fishing of 1913, the early months of 1914 witnessed a boom in the building of both steam drifters and steam trawlers. So great, indeed, was the rush to acquire the first-named type that many builders were compelled to refuse orders, and prospective owners had to fall back upon second-hand English vessels, which, owing to the keen demand, in some cases realised more than their prime cost. When war broke out, however, the situation rapidly changed, and wherever possible orders for drifters were cancelled. In the case of trawlers, on the contrary, the demands was unaffected by the war, and builders were exceptionally busy throughout the whole year. At both Leith and Dundee, the building of trawlers was resumed after having been in abeyance for several years, and many orders were still on hand at Aberdeen and Leith at the close of the year.

Notwithstanding the collapse which occurred in drifter building, there was an increase, as compared with 1913, of 20 in the number of these vessels launched, while the number of all types built during the year was the largest since 1908.

In all, 63 steam drifters were built during 1914, as against 43 in the preceding year. The average cost per vessel was £2912, or nearly 6 per cent. more than in 1913. Forty of these vessels were built to the order of Moray Firth fishermen, while 6 were ordered from England, and most of the remainder from Fraserburgh.

The number of sailing and motor boats built was the same as in 1913, viz. 129, but the value shows a decrease of £6097. This is accounted for by the falling off in the demand for the largest first-class boats, none of which was constructed during the year, while only 10 of from 30 to 45 feet of keel were built, as compared with 20 in the preceding year. Second-class boats of from 18 to 30 feet of keel show a decrease of 5 in number, but an increase of £300 in value, while as regards third-class boats (under 18 feet of keel) there was an increase of 17 in number and £213 in value. The number of motor boats actually built was small, but the installation of motors into existing sailing boats provided a considerable amount of employment for boat builders on different parts of the coast.

Of steam trawlers 54 were constructed, at a cost of £381,500, or an average of £7065 each, these figures representing increases of 23, £180,000, and £565 respectively upon the figures for the preceding year. Twenty-five of these vessels were built for English owners, twenty-two were for Aberdeen, and seven for Granton.

BARREL MAKING.

As fully 80 per cent. of the 4,000,000 or 5,000,000 cwts. of herrings now landed annually around the coasts of Scotland is cured in pickle, generally for consumption on the Continent, the manufacture of the package for the reception and transport of the cured article is in itself an important industry. The Scottish herring barrel is standardised both as regards size and workmanship by Regulations made by the

Board under statutory powers, and is found to meet the requirements of the trade exceedingly well. It is made in two sizes, the "whole barrel" of $26\frac{2}{3}$ gallons, and the more recently introduced "half barrel" of $13\frac{1}{3}$ gallons. To keep the cured herrings in good condition the barrels must remain perfectly tight, and in order that the barrels may stand the great pressure to which they are subjected when piled in tiers in the hold of a ship, the good workmanship and materials specified by the Regulations are fully required. The method of hooping now invariably adopted, viz.: wooden hoops on the quarters and the stronger and handier iron hoops on the ends only, helps greatly to preserve the barrels, as the projecting wooden hoops relieve the pressure on the bulge.

Herring barrels are used in the trade in Scotland practically only once: a few cargoes of empty barrels were brought back some years ago, but did not give satisfaction. Old Scottish barrels are, however, bought up and filled by the Dutch curers, and are put to a variety of uses in the interior of Germany and Russia. In the East Anglian autumn fishing new Scottish barrels are largely used, not only by curers who have taken their stock south, but also by English curers who import from Scotland. The annual output of barrels in Scotland is therefore in excess of the large number of barrels of herrings cured from year to year.

Appendix G. No. II. (p. 150) shows that in all 2,884,463 barrels (2,001,466 whole, 882,997 half) were manufactured in Scotland in 1914, as compared with 3,029,963 in the record year 1913, a decrease of less than 5 per cent. The decrease would have been much greater were it not that the manufacture of barrels has been continued in the hope of an early improvement in the international situation. But if, as threatens, only a very restricted fishing takes place in 1915, stocks must soon be as large as any curer desires to carry. Of the total output in 1914 over 80 per cent. was manufactured at the five ports, Aberdeen, Peterhead, Fraserburgh, Wick, and Lerwick. Less than 1 per cent. was constructed of woods other than fir.

BASKET-BRANDING.

As will be seen from Appendix G, No. II., the number of $\frac{1}{4}$ -cran baskets examined and branded during 1914 shows a considerable decrease from that of the preceding year, the figures for 1914 and 1913 being respectively 38,306 and 51,426. The only district to show an increase is Loch Carron and Skye, where the factory at Uig, with an output of 8253 baskets, improved upon its production in the preceding year to the extent of 60 per cent.

MARINE SUPERINTENDENCE.

During the first seven months of the year the superintendence of the fisheries around the Scottish Coasts was carried out by the five fishery cruisers belonging to the Board, and by H.M.S. "Ringdove." The Board's vessels were employed on their usual stations, as detailed

in previous Reports, and H.M.S. " Ringdove " was principally engaged in the Moray Firth.

The work of the cruisers during that period presented no new features, except that a specially close patrol of the Moray Firth was carried out during the cod-net fishing season, and to that patrol the decrease in the damage caused by foreign trawlers to the cod nets was largely due.

On the outbreak of the war the Board's vessels passed into the service of the Admiralty, and since that time they have been engaged on not unimportant duties connected with the defence of the country.

The mobilisation of the cruisers left the Board without the means of patrolling the waters closed to trawling, and to this fact the outbreak of illegal trawling, which is referred to later in this Report, appears to have been largely due.

This outbreak of trawling rendered special measures necessary, and the Board accordingly chartered a drifter to patrol the waters on the East Coast which were specially affected, while in the more protected waters of the Firth of Clyde motor boats were engaged when necessary.

The vessels employed by the Admiralty for patrolling the coast also rendered very valuable assistance in the suppression of illegal trawling in both areas, and the Board desire to place on record their deep sense of indebtedness to the Admiral Commanding, Coast of Scotland, and to the other Naval Officers concerned for such assistance.

The Board also desire to express their appreciation of the action taken by fishermen and others, frequently at inconvenience and risk to themselves, in detecting and reporting trawlers contravening the law.

By the Admiralty Orders for Fishing Vessels issued in December the greater portion of Scottish waters was closed to trawlers, and in consequence of that and of the special measures taken illegal trawling was reduced to negligible proportions at the close of the year.

PROSECUTIONS FOR ILLEGAL TRAWLING.

It will be observed from Appendix K, No. II. (p. 162), that during the year 1914 the number of prosecutions for illegal trawling round the Scottish coasts was 73, from which 67 convictions resulted, the corresponding figures for the previous year being 29 and 27 respectively.

The great increase in the number of cases was due mainly to the conditions created by the war, which provided the opportunity or excuse for an outbreak of illegal trawling in the later months of the year. Of the 73 cases only 12 were for offences prior to the month of August.

As indicated above, the Board's cruisers were, at the outbreak of the war, mobilised to undertake certain duties in connection with the defence of the country, and for a time the Board were without means of patrolling the waters closed to trawling.

It might reasonably have been expected that, in the circumstances, trawlers would have been careful to refrain from encroaching on waters closed to trawling, but, unfortunately, this did not prove to be the case, and it was not until measures had been taken to deal with the

situation and substantial penalties had been inflicted in a number of cases that matters resumed their normal conditions.

The areas most affected by this outbreak were the Firth of Clyde and Luce Bay, and the coast of Aberdeenshire, between Aberdeen and Peterhead.

The months of September and October and the early part of November witnessed an incursion of English trawlers into Luce Bay and the Firth of Clyde, 34 separate vessels being detected by the Board's Fishery Officers, by Naval patrol vessels, or by fishermen and other private individuals. In each case the accused made the excuse that the Admiralty Orders for fishing vessels in force at the time were understood by trawl skippers to permit trawling in all waters on the West Coast, an understanding which was wholly incorrect, and which should have been verified before being acted on. In the first cases tried the presiding Sheriff imposed nominal fines of £5, and the precedent was followed in the majority of the other cases. In 3 of the cases the charges were not pressed owing to the accused being engaged in mine-sweeping when the trials occurred.

In the East Coast cases the war conditions also provided the excuses in the majority of the cases. The excuse proffered varied in details, but was generally to the effect that the accused understood that the prohibition of trawling in inshore waters was in abeyance, on account of, or as compensation for, the restrictions imposed by the Admiralty on fishing in the North Sea. In the earlier cases modified penalties were generally imposed, but these did not prove a deterrent, and later offences were met by substantial fines, the maximum permissible being imposed in one case. The results of the trials and the knowledge that measures had been taken to detect offenders proved effectual, and only two cases were reported during December.

The total amount of the fines imposed was £1810, an excess of £465 over the amount for 1913. The average fine shows a decrease from £51 to £27, this being principally due to the very moderate penalties imposed in the Firth of Clyde cases referred to above. In 7 cases the accused elected to go to prison rather than pay the fine, and the total fines paid amounted to £1412, 7s. 6d., this representing an increase of £692, 7s. 6d. on the previous year's figure.

Only 2 prosecutions of the skippers of foreign trawlers were recorded, both referring to alleged offences within the three mile limit in the Moray Firth. In 1 of the cases a verdict of "Not proven" was returned.

In Appendix K, No. IV. (p. 171), will be found a summary of the prosecutions since the year 1886.

PROSECUTIONS FOR OTHER OFFENCES.

Appendix K, No. III. (p. 169) gives particulars of prosecutions of the masters of fishing vessels for offences other than illegal trawling. There were 20 prosecutions during 1914, an increase of 16 on the previous year's figure. Six were in connection with trawling offences, 3 being for failure to exhibit the regulation lights while trawling by night, 2 for concealment of distinguishing letters and numbers, and 1 for refusal to obey the orders of a Sea Fishery Officer.

The circumstances of the case last referred to were that the Commander of a fishery cruiser overhauled, within three miles of the Scottish coast, a trawler registered abroad engaged in what appeared to him to be trawling, charged those on deck accordingly, and ordered them to proceed with their vessel to a neighbouring port. This they refused to do, and the master was subsequently brought to trial and charged with the two offences of illegal trawling and refusal to obey the lawful directions of a Sea Fishery Officer ; but as a result of a conflict between the evidence of those from the cruiser and those from the trawler, the Sheriff-Substitute found the first charge "not proven," and held that accordingly the Commander's orders were not lawful, and that the second charge also failed. The case involving the second charge was appealed in the public interest to the Court of Session, with the result that a full bench ruled unanimously that the validity of the Commander's orders was unaffected by failure to secure a conviction for illegal trawling, and that the trawl master by not obeying the orders given was guilty of an offence against the Sea Fisheries Acts as charged. The case is of interest as defining more clearly the powers of the officers of the Board in the execution of their duties.

Twelve convictions were obtained for daylight fishing for herrings in the Firth of Clyde in contravention of the Statute, but only nominal penalties were imposed. The remaining 2 cases related to damage caused by one fishing vessel to the gear of another.

TRAWLING IN PROHIBITED AREAS PREVENTION ACT, 1909.

The above-named Act, which was passed with a view to excluding foreign trawlers from working in waters *intra fauces* of Scotland, extended to the whole of the United Kingdom those provisions of the Herring Fishery (Scotland) Act, 1889, which rendered illegal the landing or selling in Scotland of any fish taken by trawlers in prohibited areas. The administration of the Act is vested conjointly in the Board and the Customs authorities.

The Moray Firth is the largest and most important area coming within the operation of the Act, and the following table gives (1) particulars of the number of different foreign trawlers reported as having been observed working in the Firth, and (2) the number of separate occasions on which those trawlers were observed, for the seven years ending 19th October last :—

[TABLE.]

NATIONALITY OF TRAWLERS.	BEFORE ACT IN OPERATION.				AFTER ACT IN OPERATION.									
	1907-8.		1908-9.		1909-10.		1910-11.		1911-12.		1912-13.		1913-14.	
	Trawlers.	Occasions.	Trawlers.	Occasions.	Trawlers.	Occasions.	Trawlers.	Occasions.	Trawlers.	Occasions.	Trawlers.	Occasions.	Trawlers.	Occasions.
Norwegian . . .	16	171	13	112	7	103	8	141	7	84	6	112	6	87
Swedish . . .	1	3	...	...	1	1	1	8	8	28	2	7	...	...
Danish . . .	8	25	16	99	9	60	1	10	2	14	4	47	5	44
Total Scandinavian .	25	199	29	211	17	164	10	159	17	126	12	166	11	131
German . . .	1	2	1	1	5	12	16	33	28	55	15	21	15	27
Dutch . . .	2	2	6	8	7	15	11	15	10	24	13	29	21	58
Belgian . . .	8	27	10	19	9	26	3	6	5	18	6	16	15	58
Total .	11	31	17	28	21	53	30	54	43	97	34	66	51	143
Grand Total .	36	230	46	239	38	217	40	213	60	223	46	232	62	274

The Act was aimed principally at the pseudo-Scandinavian trawlers, registered in Scandinavian countries, but, as there is good reason to believe, really owned in Britain. It will be observed that the number of trawlers working, which had fallen from 60 in 1911-12 to 46 in 1912-13, had again risen to 62, while the number of occasions on which the trawlers were observed—274—was the largest since the passing of the Act, notwithstanding the fact that soon after the outbreak of war foreign trawlers were wholly prohibited from working in the Moray Firth. The increase is entirely due to the much greater number of Dutch and Belgian trawlers engaged.

The Firth of Clyde is the only other prohibited area in Scottish waters which has been frequented by foreign trawlers, and trawling there practically ceased with the passing of the Act.

Fish landed in the United Kingdom in contravention of the Act are liable to confiscation by the Customs authorities, but only four such cases have come under the notice of the Board.

ENQUIRIES INTO COMPLAINTS OF DAMAGE TO BOATS OR GEAR.

In Appendix K, No. 1 (p. 157) will be found particulars of complaints by fishermen of damage to their boats or gear by other fishing vessels, made to and investigated by the Board's officers. The total number of such complaints was 36, representing a decrease of 21 when compared with the previous year's figures. This considerable decrease was to some extent attributable to the reduction of fishing, which was necessarily caused by the restrictions imposed by the Admiralty,

but there is good reason for supposing that it was also partly due to the regulations which the Board issued for the marking and lighting of cod-nets. The total number was made up of 18 cases of damage caused by foreign fishing vessels and the same number by British fishing vessels, and of the former class, 14 were of damage to cod-nets in the Moray Firth.

The large proportion in last year's figures (29 out of a total of 57) of cases of damage to cod-nets by foreign trawlers in the Moray Firth, formed a subject for consideration by the Board, and it was felt that much of the damage sustained by the fishermen was largely due to their own carelessness in leaving their nets unattended and insufficiently marked, and also to ignorance on the part of the foreign trawl masters as to the *modus operandi* of this fishing. The Board, therefore, immediately prior to the opening of the cod-net fishing season, formulated special regulations for the marking and lighting of cod-nets, and with the co-operation of the Customs officials at Grimsby and the fishery authorities of most of the countries of North-western Europe, these were brought to the notice of the owners and skippers of the foreign trawlers which made a practice of fishing in the Moray Firth.

The measures thus taken, however, were less successful than would have been the case if the fishermen had shown greater readiness to comply with the regulations made in their interests, and the good results which did accrue were due to the efforts of the Board and their officers, and to the strict patrol maintained by one of the Board's cruisers especially detailed for the purpose.

Of the 14 cases of damage caused by foreign trawlers, 9 were caused by one trawler.

The amount of the damage sustained in cases in which foreign trawlers were involved, was estimated by the Fishery Officers at about £220, of which about £200 represented damage to cod-nets. The Board endeavoured in some of the cases to obtain compensation for the fishermen, but without success, as the fishermen could not always adduce evidence as to the identity of the trawler alleged to have caused the damage or that their nets had been properly marked.

The cases of damage by British fishing vessels to other British fishing vessels or their gear numbered 18 as against 21 in the previous year. Under Sec. 7 of the Sea Fisheries Amendment Act, 1885, the Fishery Officers are empowered to investigate and assess the amount of the damage in such cases, and the amount so assessed was £164, of which £100 was recovered by the complainants. Trawlers were alleged to have caused the damage in 15 of the cases, and paid in compensation sums amounting to £93, 5s.

In addition to the cases referred to above, the Fishery Officers investigated several claims for damage alleged to have been caused by H.M. war ships. Such cases were much less numerous than in the previous year, and the sums paid by the Admiralty in respect of them amounted to only a few pounds.

CASUALTIES.

The number of lives lost, the number and value of boats totally wrecked, and the amount of the damage sustained by boats and gear

during the year 1914 in connection with the Scottish fisheries are shown in Appendix F, No. III.

Twenty-four lives were lost during the year—a decrease of 6 as compared with 1913. Five persons met their deaths through the foundering of their boats, 2 were lost in collisions, 3 men were washed overboard, 7 fell overboard, and 7 were knocked overboard or killed by sails.

The number of boats totally wrecked was 32, and their value £16,215, these figures representing a decrease of 8 in number, and of £4874 in value from those for 1913. The number of boats damaged also shows a considerable decrease (602 against 828), while the amount of damage was £20,754, as against £31,981. Unfortunately the value of nets and gear lost or damaged in 1914 shows the large increase of £13,236, as compared with the preceding year's figures. The total pecuniary loss, however, shows a decrease of £2865 when compared with 1913, the figures being respectively £124,147, and £127,012. On account of the war very few vessels went to the English fishing, and consequently the loss of gear at that fishing, which is usually very heavy, was negligible, although one boat belonging to Buckie struck a mine and sank, five members of the crew being lost.

PREVENTION OF DAMAGE BY TRAWLERS TO SUBMARINE CABLES.

The inspection of trawl gear at Aberdeen, Leith, and Dundee by the Board's officers was carried out during the year in a highly satisfactory manner. As hitherto, the officers were given every facility in their rounds of inspection by all with whom they came in contact.

No serious defects were discovered in the gear inspected, the numbers given in the return below under "found defective" being chiefly referable to trawlers whose boards had broken keels, loose protruding bolts, or similar trivial defects, and in each case these defects were remedied before the vessels left for sea.

During the year 228 new sets of trawl boards were noted as having been shipped to replace those unfit for use and considered dangerous to submarine telegraph cables.

The following return shows the number of inspections of trawl gear made during 1914, distinguishing between (1) Scottish, (2) English, and (3) Foreign trawlers :—

Port.	Number of Inspections.			Cases in which gear found Defective.		
	Scottish.	English.	Foreign.	Scottish.	English.	Foreign.
Aberdeen. . .	4,094	139	414	501	3	..
Leith . . .	567	30	..	5	3	..
Dundee . . .	87	1	..	..	..	..
Total . . .	4,748	170	414	506	6	..

As compared with the previous year the number of inspections shows an increase of 588, whilst the number of cases of defective gear has decreased by 21. It is thus obvious that the owners and skippers of trawl fishing vessels are paying more attention to the condition of trawl gear, which is a matter for satisfaction, alike in their own interests, and as safe-guarding the submarine cables. It will also be observed from the above return that no complaint of defective gear was recorded against a foreign trawler throughout the year.

As a result of Admiralty Orders closing all East Coast ports of Great Britain to neutral fishing craft on and after 1st October last, no foreign trawlers were reported as having called at Scottish ports after the month of September.

WHALING.

Whaling has now been carried on in Scottish waters for 12 years, in which period 6272 whales have been captured. When operations were first begun in this country, few could have foreseen that whaling would develop into the world-wide industry it has since become, but the success which attended pioneer efforts in the Antarctic revealed the potential wealth of the grounds which still awaited exploitation, with the result that capital was attracted to the industry, and numerous new companies formed, whose operations within a few years extended to every quarter of the globe. At the present day the industry has attained such large dimensions as to occasion misgivings in some quarters that the whale is in danger of extermination, and in last year's Report it was shown that, in so far as the Scottish grounds were concerned, this view was strongly supported by the statistics of the annual catch, which showed a rapid and continuous decline since 1909. The results of the season of 1914 would suggest, however, that these fears were premature, as a substantial increase upon the preceding year's figures was recorded.

The total catch during the year under review amounted to 599 whales, as compared with 437 in 1913. The number, species, and sex of the whales captured are shown in the following table, together with the totals for the preceding year.

I.					
Species.	Male.	Female.	Total 1914.	Total 1913.	
Finner (<i>Balaenoptera musculus</i>)	187	138	325	259	
Sei (<i>B. Borealis</i>)	140	108	248	159	
Sperm (<i>Physeter macrocephalus</i>)	—	—	—	8	
Bottlenose (<i>Hyperoodon</i>)	—	—	—	7	
Blue (<i>B. Sibbaldi</i>)	7	12	19	2	
Northcaper (<i>Balaena Biscayensis</i>)	4	1	5	1	
Humpback (<i>Megaptera</i>)	1	1	2	1	
Totals	339	260	599	437	

It will be seen from the above table that the bulk of the increase was referable to Sei whales, which appear to have been exceptionally abundant in 1914, although Fanners were apparently also present

in considerably greater numbers than in the preceding year. The other species enumerated are very erratic in their visits to Scottish waters, and in 1913 only Sperm and Bottlenose whales were present in any appreciable number. During the year under review not a single specimen of either of these was captured, but, on the other hand, a fair number of Blue whales—the largest of all cetaceans—and of the valuable Northcaper or Atlantic right whale, would appear to have returned, as 19 of the former and 5 of the latter were taken, whereas in the preceding year only 2 Blue whales and 1 Northcaper were captured.

Little change occurred in the men and material employed in this industry. The number of steamers engaged, which last year was increased to 13, in accordance with the provisions of Sec. 2 (4) of the Whale Fisheries (Scotland) Act, 1907, remained unaltered, although the aggregate tonnage of these vessels was greater by 59 tons, and the value by £200. The crews of these vessels numbered 130, or 1 more than in 1913, and were all Norwegians. During the season 412 voyages were made, or an average of 31 per vessel, these figures being practically identical with those for the preceding year.

In the shore factories local labour was more largely employed than in 1913, 164, or 59 per cent. of the total number of hands engaged during the height of the season having been British, as against 141, or 52 per cent. in the preceding year—an increase which was doubtless attributable to the larger number of whales which fell to be dealt with.

These statistics may be summarised as follows :—

II.

	No. of Steamers.	Total Tonnage.	Total Value. £	Men engaged on Steamers.	Men employed in Factories (Maximum Number).		No. of Voyages made.
					Brit.	Foreign.	
1914	13	550	54,200	130	164	114	412
1913	13	491	54,000	129	141	129	411

The quantity and value of the various products of the industry are shown in the following table, together with the corresponding figures for 1913 :—

III.

Products.	1914.			1913.		
	Weight.	Value.	Average Price per Ton.	Weight.	Value.	Average Price per Ton.
	Tons.	£	£ s.	Tons.	£	£ s.
Oil	2,334	48,748	20 18	1,723	32,348	18 15
Cattle Food . . .	263	1,939	7 7	221	1,657	7 10
Bonemeal	176	608	3 9	121	449	3 14
Manure	1,354	7,668	5 13	963	6,381	6 12
Whalebone	78	2,587	33 3	44	1,831	41 16
Spermaceti . . .	—	—	—	85	2,022	23 16
		61,550			44,688	

It will be seen that the value of the fishery was much greater in 1914 than in 1913, which was only to be expected in view of the increase in the number of whales captured. Apart from oil, however, there was a decline in price in all the commodities derived from these animals, while spermaceti, which, after whalebone, is the most valuable of the various products, is entirely lacking, and it is evident, therefore, that the increase in the financial yield was to a considerable degree due to the rise which took place in the price of oil. Whale oil, owing to improvements which have been introduced in the methods of refining it, has appreciated considerably in value within the last three years, and last year it stood at a higher price than at any time since 1908, when statistics were first collected. Contrary, however, to what might have been expected, the rise in price was in no way due to the demand for oil which was created by the war, as competing oils were imported into this country after the outbreak of hostilities in greater quantities than usual owing to so many of the continental markets being cut off, so that, if anything, prices were easier than they would have been in normal circumstances. Enemy countries were not so fortunately situated, and Germany, who bought heavily in Norway for military purposes, was ultimately compelled to pay as much as £30, 10s. per ton for oil of the first quality.

The average value of each whale captured was £103, as compared with £102 in the preceding year.

PART II.

SALMON FISHERIES.

The average catch of salmon, so far as the weight of the fish carried to market is a guide, and referring specially to the East Coast fisheries where the most important districts are, shows a slight upward tendency, but it is undoubtedly the case that for the last sixteen or seventeen years the Salmon Fisheries have continued at a rather low level.

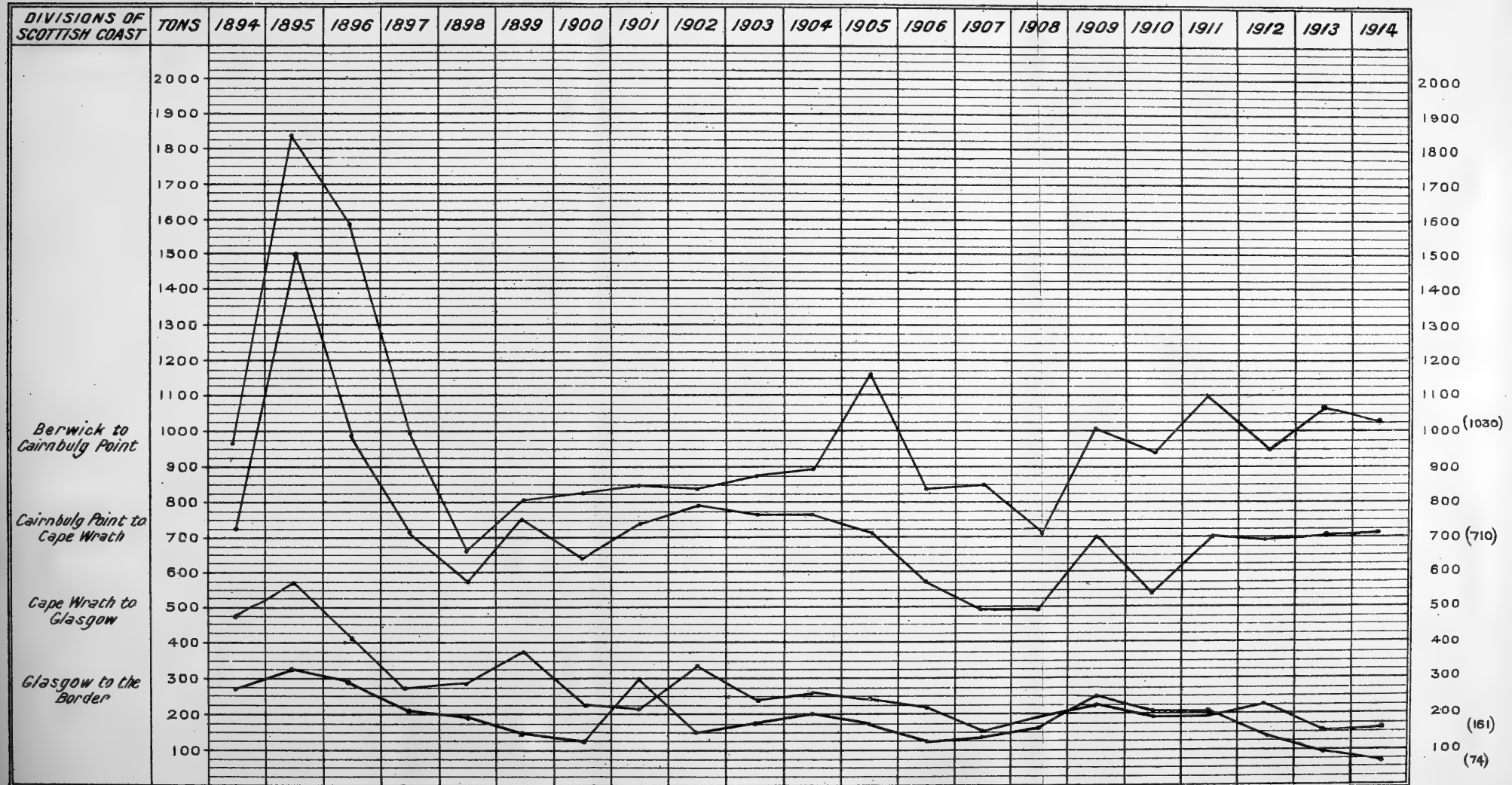
Since 1895, which was the best year of which we have record, there has not been what may be called a good all-round year. This is clearly shown by the chart of curves subjoined. In 1905 the main East Coast fishings show a rise, but in that year the lines representing the other divisions of the country are depressed. The slight rise in the average in the East and North Coasts, already referred to, is represented by the two figures for the divisions, viz.:—1015 and 664 tons, as compared with previous quinquennial averages, 887 and 608, or 839 and 737 tons respectively.

During the season 1914 the take of salmon throughout Scotland shows a decrease of 41 tons, as compared with the catch of the previous year, and it is 80 tons below the average of the last quinquennial period.

The whole coast line has been divided as usual into four sections, and the returns supplied by railways and steamship companies show that in 1914 the total weight of salmon carried was 1976 tons.

We give a table showing the averages of the three quinquennial periods 1894–1898, 1899–1903, 1904–1908, then the individual years

**CURVES SHOWING APPROXIMATELY THE TONS OF SALMON CARRIED BY
SCOTTISH RAILWAYS & STEAMSHIPS SINCE 1894**



of the quinquennial period 1909-1913 with the average, and then the figures for last season.

District.	Average, 1894 to 1898.				Average, 1899 to 1903.				Average, 1904 to 1908.				Year 1909.				Year 1910.			
	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.
<i>a</i> Berwick to Cairnbulg Point,	1,206	18	1	1	839	1	2	9	887	8	2	24	1,018	10	3	19	934	2	2	1
<i>b</i> Cairnbulg Point to Cape Wrath,	900	17	3	6	737	10	3	17	608	13	1	19	705	18	-	22	538	8	-	26
<i>c</i> Cape Wrath to Glasgow, . . .	403	7	1	21	274	18	1	27	209	3	3	6	229	15	2	26	207	8	-	21
<i>d</i> Glasgow to the Border, . . .	260	3	2	6	183	6	1	19	160	9	3	15	231	13	3	6	189	11	3	26
Totals, . . .	2,771	7	-	6	2,034	17	1	16	1,865	15	3	8	2,185	18	2	17	1,869	10	3	18

District.	Year 1911.				Year 1912.				Year 1913.				Average, 1909 to 1913.				Year 1914.			
	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.
<i>a</i> Berwick to Cairnbulg Point,	1,112	-	-	7	950	15	-	9	1,061	-	3	23	1,015	5	3	17	1,030	14	1	7
<i>b</i> Cairnbulg Point to Cape Wrath,	691	12	-	13	679	18	2	16	707	12	3	22	664	14	-	3	710	1	3	20
<i>c</i> Cape Wrath to Glasgow, . . .	209	17	1	15	226	4	3	21	152	4	-	10	205	2	-	7	161	6	3	8
<i>d</i> Glasgow to the Border, . . .	206	14	2	10	133	18	-	-	96	8	-	-	171	13	1	3	74	2	-	-
Totals, . . .	2,220	4	-	17	1,990	16	2	18	2,017	5	3	27	2,056	15	1	3	1,976	5	-	7

It has usually been noticed by the Inspector of Salmon Fisheries that when one section of the coast is above or below the average, all parts of that section are similarly affected, and it very frequently has been noticed that different sections are similarly affected, so that a drop at one part of the coast commonly means a drop elsewhere. The past season seems to have been an exception in this respect. Some districts undoubtedly did badly while other districts experienced quite a successful season.

It has more than once been pointed out that declines of recent years are largely due to an absence of grilse, or, as in the case of season 1913, to an absence of both grilse and sea trout.

The season 1914 was remarkable in some localities for the absence of grilse, yet in the upper part of the Moray Firth the coast nets did well after the grilse began to run. From the Nairn District it is reported that the sea nets had a catch above the average. Our own experimental nets, which were set on the shore of the Black Isle near Rosemarkie, shared in this good run of grilse, and 55 of the marked fish were recaptured by the Nairn nets. A report of the results obtained is published in the form of a separate paper by the Inspector.*

Grilse and sea trout appear to have been very scarce in the Solway and on the southern section of the Ayrshire coast. The conditions under which Salmon Fisheries are carried on in the Solway still continue in the absence of fresh regulative treatment. By means of various conferences and inquiries these conditions are now sufficiently

well known. It would be out of place here to enter into any detail concerning the needs of the Solway, and in any case some further conference with the English authority is anticipated, but the salmon fisheries of this region are intimately brought into contact with the whammelling and paidle net fishing of the upper waters, and with the spurling fishing and the white-fish fishing by means of stake nets practised in the lower Solway.

There appears to be little doubt that the stock of salmon entering the rivers which flow from the Scottish side of the Solway has become seriously reduced. The Cree, Nith, and Annan, all afford good spawning grounds, which are now left in great measure unused. From the Cree, it is reported that the fishing by means of fixed nets was "greatly below the average"; the fishing by means of sweep nets in tidal or fresh water "very poor"; and that there was a marked absence of grilse. The assessable rental of this river is now £882. The report from the Kirkcudbrightshire Dee does not give results of net fishings, but the rod fishing is reported as being much below the average. From the Nith it is stated that the season has been the worst on record, and that rod fishing produced only eight salmon. The assessable rental is £629. From the Annan, the actual catch cannot be given, but the season is reported as having been "greatly below the average." In this case, the assessable rental is £2273, the high figure being accounted for by the valuable fixed net fishings in the district.

Through the absence of any definite statements as to actual catch, which absence we have repeatedly deplored, and which is again referred to in Mr. Calderwood's Report, published as an Appendix, it is impossible to arrive at a definite conclusion as to the amount of the decline, but it appears to us that this region of the Solway is the one in which salmon fisheries have sunk to the lowest ebb, and concerning which, therefore, any possible legislation for the simplification and reduction of the difficulties is most needed.

There are 107 Salmon Fishery Districts in Scotland, including the Orkneys and Shetlands and the districts of the Outer Hebrides. A large number of the smaller districts on the West Coast are unprovided with District Boards. The more important districts may be said to be about thirty in number, and the assessable rentals of twenty-nine of these (minus the Spey, from which no return has been received) amount to £104,377, at the present time.

This list includes all the large districts of the East Coast. Reports have been received from 35 districts. The rental of the Tay District in 1914 reached the highest figure it has ever attained, being at the same time the highest rental of any one district in Scotland. The figure is £24,399. The assessment levied was at the rate of 6 per cent. on this rental, or £1463·9; there are 18 water bailiffs in the district. Although we have no powers of supervision in the Tweed District, we have again been favoured with a report from the Clerk to the Tweed Commissioners. The rental in the Tweed is £15,936, and the assessment levied was £3187. The Tweed requires twice as many bailiffs as the Tay.

The following table gives the rentals, since the year 1900, of the five most important districts :—

YEAR.	Tweed.	Tay.	N. Esk.	Dee.	Spey.
	£	£	£	£	£
1900 . .	..	22,548	6,510	18,989	..
1901 . .	..	22,558	6,466	19,418	8,608
1902 . .	..	22,663	6,494	19,455	8,146
1903 . .	15,338	22,648	6,494	18,393	8,147
1904 . .	15,439	23,099	6,494	19,078	7,396
1905 . .	15,499	22,675	6,489	19,332	8,364
1906 . .	15,499	22,838	6,485	19,068	8,740
1907 . .	15,732	23,202	6,490	18,940	8,990
1908 . .	16,093	23,508	6,474	18,893	9,243
1909 . .	16,092	23,715	6,614	18,335	9,396
1910 . .	16,130	23,861	7,620	17,883	9,139
1911 . .	16,130	23,873	7,617	18,005	9,129
1912 . .	16,050	23,586	7,597	17,990	10,304
1913 . .	15,930	23,584	7,597	18,153	11,228
1914 . .	15,936	24,399	7,745	18,784	..

Reports from District Fishery Boards, in somewhat abridged form, will be found appended to Mr. Calderwood's Report (p. 265). Following these, will be found statements of rateable values, and the corrected lists of annual close times applicable to the river districts in Scotland, and a list of the Chairmen and Clerks of District Fishery Boards.

In connection with the Research into the migrations of the salmon on the coast, it may be stated that arrangements have now been completed for carrying on this work, in 1915, on the east coast of Sutherlandshire between Brora and Loth. It is hoped also to extend further the marking of smolts. From the experience already gained it would appear that only by the marking of a very large number of these little fishes and of grilse are results likely to be obtained upon which reliance can be placed in forming an opinion as to the distribution of salmon along our coasts, and how much one district may be dependent upon another.

PART III.

SCIENTIFIC INVESTIGATIONS.

During the year 1914 the scientific investigations in connection with the sea fisheries were carried on under the supervision of Dr. T. Wemyss Fulton, the Scientific Superintendent, as authorised by the Board, on the same general lines as in previous years. Most of the research work has been conducted at the Marine Laboratory at the Bay of Nigg, and in the Laboratory at the Old Post Office, Aberdeen, and other inquiries in relation to the herring and the herring fishery have been made in Lochfyne in continuation

of the observations of preceding years; and also in the Moray Firth with reference to the closing of the waters there to the operations of trawlers. The special statistics of the catches of the line-boats in the Moray Firth have been collected monthly through the Fishery Officers as before, and the old trawling stations of the s.s. "Garland" have been examined with a beam trawl by the s.s. "Goldseeker," as frequently as circumstances allowed, and at dates corresponding as far as possible with those of former examinations, both with the beam-trawl and with the otter-trawl. A report on these investigations and on the statistics is in course of preparation.

The fish-cultural work at the Hatchery at the Bay of Nigg was continued in the spring last year throughout the spawning season of the plaice, and is described below. A number of requests for plaice fry were received on behalf of the fishermen at various parts of the coast, and these were as far as possible complied with, consignments being forwarded to Peterhead, Fraserburgh, Cruden Bay, and Rosehearty, and the fry liberated off the coast in the neighbourhood of these localities. The fishermen at various places on the coast have shown interest in the fish hatching work, which they believe has helped to improve the plaice fishing in their neighbourhood. During the last thirteen years a total of over 245,000,000 of the fry of the plaice have been liberated along the coast of Aberdeenshire.

THE HATCHING OPERATIONS.

In the course of the year several consignments of live plaice, caught in the Moray Firth, were brought to the Hatchery by the research steamer "Goldseeker," and placed in the large spawning pond. As always happens, a proportion of the fish died later, owing to injuries received in the process of capture, but the stock of adult fishes at the commencement of the season was fairly large. As explained at length in former Reports, the adult plaice of both sexes are retained in a large tidal pond into the water of which the eggs are shed, and where they are naturally fertilised during the spawning season. The floating eggs are collected at intervals by means of a large fine-meshed net, and transferred to the Dannevig hatching apparatus, where they are kept until the larval fishes are born. The period of incubation varies with the temperature of the water. Hatching, as a rule, takes place in the early part of the season, namely, in January and February, in from three to four weeks, and about a week sooner in the latter part of the season, in April and May. The larval fishes are retained in the apparatus until the yolk-sac is nearly absorbed, when they are transferred to the sea in suitable localities.

The first collection of eggs was made on 19th January, and the last on 1st May, more than half the number being obtained in March. The estimated number of eggs collected from the spawning pond in the season was 21,810,000, and the estimated loss in the process of hatching in the apparatus amounted to 2,980,000, or about 14 per cent. Thus, the estimated number of fry obtained and liberated in the sea was 18,830,000. The fry were distributed in six lots between the 20th February and the 8th May. The great bulk of the fry was liberated off Peterhead and Fraserburgh, and considerable numbers at Rose-

hearty and Cruden Bay, while small quantities, at the end of the season, were put into the sea locally.

Since the hatching of the plaice was begun at the Bay of Nigg, the estimated number of the eggs which have been dealt with amounts to about 437,701,000 and approximately 343,244,000 fry of the plaice have been put into the sea. During the first two years most of the fry were taken to Lochfyne and liberated there, in continuation of an experiment which was begun some years before with the view of ascertaining the effect of the liberation of the fry on the abundance of the older stages of the fish. The results of this experiment are fully described in the Twenty-Sixth Annual Report. The output of the Hatchery in each year since 1900 is given in the subjoined Table :—

Year.	Eggs Collected.	Fry Liberated.
1900	43,290,000	31,305,000
1901	65,377,000	51,800,000
1902	72,410,000	55,700,000
1903	65,940,000	53,600,000
1904	39,000,000	34,780,000
1905	40,110,000	24,500,000
1906	7,486,000	4,406,000
1907	1,627,000	1,282,000
1908	15,332,000	12,296,000
1909	19,749,000	16,615,000
1910	7,880,000	6,880,000
1911	6,200,000	5,680,000
1912	24,650,000	19,250,000
1913	6,840,000	6,320,000
1914	21,810,000	18,830,000
	<hr/>	<hr/>
	437,701,000	343,244,000

Up to the year 1905 the adult plaice required for the breeding stock were obtained by the use of commercial trawlers ; since then the fish have been secured by the s.s. " Goldseeker," mostly from the Moray Firth.

THE INVESTIGATIONS ON THE HERRING FISHERY IN LOCHFYNE.

The investigations on the Lochfyne herring fishery which have been described in previous Reports were continued in 1914, as in previous years, so far as the means at disposal allowed. The statistics show that the yield from this once important fishing continues at a very low level, the quantity of herrings taken in Lochfyne last year being, indeed, the smallest of which we have any record, amounting to only 3216 cwt.s. or 919 crans. The first herrings to be caught in the loch appeared in April, and there was a gradual increase in the quantity taken till July, after which the numbers declined. The following shows the monthly catch in cwt.s., last year :—

April	14	September	105
May	14	October	14
June	434	November	0
July	1550	December	35
August	1050		

How small this quantity is may be judged from the statistics of past years. These show that the mean annual catch of herrings in the loch for the period 1863 to 1906 was 25,180 crans, and for the eighteen years up to 1906 it was 27,375 crans, while the largest quantity taken in any single year was 56,820 crans in 1897. The figures for the fourteen years are as follows :—

Year.	Herrings Caught.	Year.	Herrings Caught.
1901 . .	29,117 crans.	1908 . .	4,070 crans.
1902 . .	26,339 „	1909 . .	3,684 „
1903 . .	21,198 „	1910 . .	10,405 „
1904 . .	7,827 „	1911 . .	4,672 „
1905 . .	4,672 „	1912 . .	2,192 „
1906 . .	5,258 „	1913 . .	3,056 „
1907 . .	3,914 „	1914 . .	919 „

In the Lochfyne herring fishery there have been seasons of scarcity before, but none in which the period continued so long. In the years from 1871–1875, the yield was comparatively small, amounting in 1873 to only 3648 crans, but, as the above table shows, the present depression has not only continued longer, but has been more severe.

Fluctuations in the herring fishery, especially in fjords or arms of the sea, are of no infrequent occurrence on the coasts of other countries, and have been attributed to various causes, such as changes in the physical conditions of the water, or in the quantity or kind of the minute floating organisms, on which the herring mainly subsists. At a number of places in the loch, a series of temperature observations are made at different levels, and collections of the floating food secured, and it is proposed to continue these investigations until the herrings return to the loch in their former abundance, so that comparison may be instituted between the observations taken in the period of scarcity and those taken in the period of abundance.

Dr. Johan Hjort, the Director of the fisheries of Norway, recently made an exhaustive inquiry into the fluctuations of the herring fisheries on the Norwegian coast, principally by means of a study of the growth markings on the scales of the fish. He states that in the Norwegian herring fisheries there has been for a number of years a very marked predominance of herrings which were spawned in the year 1904. The herrings of this year-class are said to have formed the bulk of the catches, and it is supposed that when this year-class of herrings dies out there may be a period of scarcity unless and until another year-class becomes abnormally abundant. These conclusions of Dr. Hjort, should they be confirmed, offer a new and important explanation of the great annual fluctuation that may take place in the herring fisheries.

With regard to the observations made in Lochfyne, above mentioned, since the fishery cruiser stationed in the district cannot be made available for the observations, the practice has been to hire a small yacht when that can be done (in the summer months), but in winter, when yachts are laid up, the observations can only be made by means of a fishing boat, and there are objections to the use of such craft in winter by the scientific staff. Under these circumstances the

Board approached the Development Commissioners with the view of obtaining a grant for the provision and maintenance of a motor boat suitable for the work. The application was favourably entertained, but, owing to the outbreak of the war, the matter has, in the meantime, been postponed.

The Races of the Herring.

For some time the question of the existence and definition of different races of the herring has received considerable attention from fishery experts, as it has an important relation to many fishery problems. Professor Heincke, the Director of the Biological Institute, Heligoland, and one of the greatest authorities on the natural history of the herring, has described a considerable number of different races among the herrings inhabiting European seas, and his conclusions have been hitherto very generally accepted. In a paper entitled *A Short Resumé of the Researches into the European Races of Herrings and the Method of Investigation*, published last year,* Dr. H. C. Williamson gives a brief account of the methods and conclusions of Professor Heincke and some other investigators. He discusses the characters which seem to be of most importance in distinguishing between different races of the herring, and lays stress upon the advantage of having a uniform list of characters which might be adopted by all investigators, particularly in connection with the international investigations. Since, however, it is understood that Professor Heincke has now abandoned many of the characters upon which he formerly relied, viz. the measurement of soft parts, it would appear that the whole question of the distinction of races among herrings requires renewed investigation.

FISHERY INVESTIGATIONS IN THE NORTH SEA.

Since the 1st April 1910, when the international investigations in the North Sea were placed under the direct control of the Board, the fishery investigations of the research steamer, the "Goldseeker," have been under Dr. Fulton's charge, and have been carried out according to a monthly scheme submitted to and approved by the Board. The following is a summary of the work done last year :—

Trawling Investigations.

The investigations by the "Goldseeker" were last year very considerably curtailed. At the beginning of the year it was found necessary that the vessel should undergo a very thorough overhaul, and it was laid up at Leith for the first two months of the year. Then, at the beginning of August, on the outbreak of the war, the vessel was withdrawn from its ordinary duties and utilised by the Admiralty. In consequence of these facts, comparatively little scientific work was accomplished by the vessel.

Altogether, 21 hauls were made with the trawl nets (as compared with 186 in the previous year), namely :—8 with the beam trawl and 13 with the otter trawl, with special cod-ends, in continuation of the experiments in herring trawling.

* *Fisheries, Scotland, Scientific Invest.*, 1914, i. (April 1914).

In most of the hauls a small-meshed net was used outside the cod-end, in order to catch the smaller fishes which escaped through its meshes.

The great majority of the fishes caught were individually measured, the sizes being recorded, while large numbers were opened and the condition of the reproductive organs ascertained and noted. Observations were also made in many cases on the contents of the stomachs, in order to determine the food upon which the fishes subsist. These records are being worked up for publication.

Migrations and Growth of Fishes.

As stated in last Report, marking experiments on the plaice were carried on for the ten years from 1904 to 1913, but were discontinued last year for the reasons explained. During the year, 550 plaice which had been marked in previous years, were recaptured. The particulars with regard to the plaice marked in each of the ten years, and the percentage of recaptures (to the end of 1914) are as follows :—

Year.	Number Liberated.	Number Recaptured.	Percentage Recaptured.
1904 . . .	310	101	32·6
1905 . . .	245	89	36·4
1906 . . .	40	12	(30·0)
1907 . . .	13	6	(46·1)
1908 . . .	259	67	25·9
1909 . . .	336	65	19·3
1910 . . .	1915	996	52·0
1911 . . .	1733	889	51·3
1912 . . .	2165	1198	55·3
1913 . . .	1345	638	47·4
	<hr/> 8361	<hr/> 4061	<hr/> 48·6

As the table shows, the percentage of recaptures has varied somewhat in different years, the mean for the ten years (up to the end of 1914) being 48·6. As many of the marked fishes liberated in any one year are recaptured over a number of years (it may be for four or five years), there is little doubt the percentage will be yet increased. It will be observed that the percentage of recaptures for the year 1912 amounted to as much as 55·3. In some of the experiments the percentage was very much higher, as much as over 75 per cent.

A detailed Report on the results of the marking experiments from 1904 to 1909 was published in 1913, and another Report dealing with the later experiments is now being prepared.

The main objects of the marking experiments are to ascertain (1) the migrations of the fishes ; (2) the growth ; (3) the intensity of fishing operations. With reference to the movements of the marked plaice, it is necessary to draw a distinction between those which have reached the size of maturity and those which have not. The latter do not, as a rule, move far from their ordinary feeding grounds, and they do not appear to take any very definite direction in such movements as they make. The former, on the other hand, undertake often

long journeys before the spawning season, and in the great majority of cases they move northwards along the East Coast against the prevailing current. This northward migration is, doubtless, to compensate for the southerly drift of the floating eggs and larval fishes from the localities where spawning takes place. Thus, many of the adult plaice which have been marked and liberated in the Firth of Forth, or to the east of the Isle of May, were recaptured off the coast of Aberdeenshire or in the Moray Firth. Some of them, indeed, travelled to the Orkney Islands, the North Coast of Scotland as far west as Cape Wrath, and several were caught again on the West Coast of Scotland, a few as far south as Loch Inchard, Sutherlandshire, a distance of nearly 260 miles from the locality of liberation. In some instances these fish moved with great rapidity: for example, two plaice liberated in the Firth of Forth, between Elie and Fidra, were caught after 114 days at Loch Inchard; one, liberated 20 miles east of the Isle of May, was recaptured off Cape Wrath, a distance of 230 miles, after an interval of only 84 days. In like manner, many of the adult plaice liberated off the coast of Aberdeenshire and in the Moray Firth, or in the vicinity of Fair Isle, were recaptured on the North Coast and the West Coast, one as far south as Dubh Artach, to the south-west of Mull.

These marking experiments also throw light on the intensity of fishing operations. There is no reason to suppose that the marked plaice are either more liable or less liable to capture than those which live beside them in their natural condition on the fishing grounds. The proportion of the marked fish recaptured thus furnishes an indication of the proportion of the natural stock which is within a given time removed, and this proportion in many cases is much larger than might be expected. Thus, of 960 plaice marked and liberated 20 miles east of May Isle, no less than 632, or 65·8 per cent., were recaptured; of 1227 liberated on Aberdeen Bank, which lies about 30 miles south-east of Aberdeen, 724, or 59 per cent., were recaptured; of a total of 823 marked and set free in the Firth of Forth, the number recaptured was 483, or 58·7 per cent.; and, even in the neighbourhood of Fair Isle, where 940 plaice were liberated, the recaptures numbered 461, or 48·9 per cent. In the four years, 1910 to 1914, of 7158 plaice marked and liberated, 3721, or over 53 per cent., were recaptured, in the great majority of cases by trawling. These figures give some indication of the extent and intensity of fishing operations in the North Sea.

The Influence of Marine Currents.

As is indicated above, the part which is taken by sea-currents in distributing the floating eggs and larvæ of fishes may have an important bearing on fishery problems. Sea-currents may profoundly influence the migration of the adult fishes, the movement of the floating eggs and young fishes from one part of the coast to another, and the movements of the plankton, or floating organisms, so important for the food of fishes. Investigations were therefore undertaken to ascertain as thoroughly as possible the course, direction, and rate of the surface currents along the East Coast of this country, and throughout the North Sea generally. For the investigation of the surface currents, a large number of small sealed bottles, suitably weighted to maintain

them submerged at the surface, were thrown into the sea from the "Goldseeker" at various places, both near the coast and at a distance from it, each bottle containing a numbered card for identification later. Of a total of 5928 drift-bottles of this kind which have been put into the sea to the end of the year 1914, 1070, or 18 per cent., have been returned, partly from the British coast, but mostly from the continental coasts, more especially from Denmark and Norway, and some of them have been found as far north as the Lofoten Isles and the North Cape, and a few even on the Murman Coast in Barents Sea. The number of surface drift-bottles put into the sea last year was 832, and the number returned in the twelve months was 127, of which 3 had been set adrift in 1912, 32 in 1913, and the remainder in 1914. A Report on the results of these experiments is in course of preparation.

Similar investigations have been made to ascertain the movement of the water at the bottom of the North Sea, by means of special bottles, so weighted as to be carried along with the bottom currents. The second Report, by Captain C. H. Brown, giving the results of these investigations was published last year.* They confirm generally the results of the previous investigation described by Captain Brown in his first Report.† The bottom water appears to flow into the North Sea through the Orkney-Shetland channel, the main stream flowing to the southward into the Moray Firth and along the East Coast of Scotland, an indraught into the Firth of Forth being well marked. In the vicinity of the Long Forties, a branch from this southerly flow trends to the eastward, and while this east-going stream apparently sweeps right across to the Skagerak, the main stream bends sharply to the northward, and flows with increased velocity along the Norwegian coast. The second series of observations, however, show that the cyclonic system of deep currents, which, by the first investigations, resolved itself into a more or less circular shape with a small central axis situated somewhat to the south of the Bressay Shoal, appears to be considerably elongated, the major axis, or lane, of apparently still water, extending along the meridian of Greenwich for about 60 miles. To the westward of the Prime Meridian the flow is to the southward, and in the east longitude there is a relatively rapid flow to the northward, these two opposite streams being separated by only some 30 miles.

THE MEAN LEVEL OF THE SEA.

A paper ‡ by Professor D'Arcy W. Thompson has been published dealing with the subject of Mean Sea Level, and the fluctuations to which this mean level is subject. Though mean sea level is, or is supposed to be, the datum to which all levels are referred in our Ordnance Survey, it is a curious fact that mean sea level has itself never been accurately determined. Moreover, it is shown in the present paper that the mean level of the sea is subject to fluctuations so numerous and so varied that in all probability it never can be determined with accuracy, and all we can do is to approximate, during a long course of years, nearer and nearer to a true determination.

* *Fisheries, Scotland, Scientific Invest.*, 1913, ii. (August 1914).

† *Fourth Report (Northern Area), North Sea Investigations*, 1909.

‡ *Fisheries, Scotland, Scientific Invest.*, 1914, iv. (March 1915).

Apart altogether from the ordinary phenomenon of high and low tide, there is found to be a difference in the mean level of the North Sea amounting on the average to about six inches between May and December; and even at the same season there may be a difference in mean level from one year to another amounting to two or three inches. Such changes of level must involve the movements into and out of the North Sea of an immense body of water, and must appreciably affect not only the currents, but also the composition and salinity of the sea itself. It forms a part, therefore, of those hydrographic studies which must be undertaken if we are ever to have a proper understanding of the physical conditions of the sea, and of their relation to the life-history and the fluctuating abundance of fish. Among many other fluctuations in sea-level which are discussed in this paper, there are three of particular interest. One of these is a small tide with a period of about nineteen years. It depends upon a well-known phenomenon in the moon's motion, by which the moon's inclination to the ecliptic varies in a period of $18\frac{1}{2}$ years. A small tide of this period is accordingly set up, and, small as it is, its regular 19-yearly ebb and flow can be detected throughout the last fifty years upon the Aberdeen tide-gauge records. Another small tide is found to have a period of about fourteen months. This is a very remarkable tide, which was very recently discovered for the first time by certain Danish observers. It depends upon a very small periodic movement of the earth's axis, by which the whole earth wobbles (so to speak) in its otherwise steady rotation, like a spinning top. Though this little tide causes a rise and fall of less than an inch in fourteen months, it can still be detected in both the Aberdeen and Dundee tide records. Lastly, there is a very curious fluctuation, hitherto quite unknown, by which the sea-level is found to have fallen steadily (though very slightly) from about 1870 to about 1893, and to have risen with the same steadiness since that time. The whole period of this fluctuation must be at least fifty years, and the cause to which it is due is meanwhile quite unexplained.

The Spawning of the Plaice and the Distribution of the Eggs.

A Report, by Dr. Alexander Bowman, was published last year* on the occurrence and distribution of the eggs of the plaice in the northern parts of the North Sea, the result of the investigation of the collections made by the research steamer "Goldseeker" during the months of November to March in the years from 1904 to 1913 inclusive. This Report contains much valuable information on the life-history of the plaice. It is shown that the northern part of the North Sea is a spawning area of minor importance for this fish compared with the southern parts of the North Sea, and that within the northern area the Moray Firth is by far the most favourable locality for plaice during the spawning season. The general study of the distribution of plaice eggs shows that the region within which they occur is well defined. In the northern part of the North Sea, this region is bounded by a line which runs almost parallel and adjacent to the 50-fathom line; then parallel to the coast of Scotland, from Rattray Head to the Firth of Forth, including practically all localities with a less depth than 40

* *Fisheries, Scotland, Scientific Invest.*, 1914, ii. (August 1914).

fathoms. In very shallow water spawning does not take place, and newly-spawned eggs are rarely found there. No ripe plaice nor newly-spawned eggs are found in the sandy bays of the East Coast of Scotland, and they are also absent from the shallow waters of such localities as the Dornoch Firth and Burghead Bay. Proximity to the shore is not the dominant factor regulating the distribution of ripe plaice, although large numbers of freshly-spawned eggs are often found close to the land, in localities where there is a rapidly shelving coast line, and where the conditions are otherwise suitable. Although newly-spawned plaice eggs are found widely distributed in the zone within the 50-fathom line, with the exception of the shallow coastal area, spawning is most intense in the intermediate depths. The frequency of spawning plaice is very low in depths between 40 and 50 fathoms. The observations show that the spawning plaice is distinctly localised; there are localities of higher and of lower density. The most favourable spawning areas lie well within the Moray Firth, and there is a gradual fall in the intensity of spawning from north to south along the East Coast of Scotland. It may be said that the chief spawning grounds on the East Coast lie in a narrow belt not more than 20 miles from the coast, stretching from Montrose to Aberdeen. There are also considerable differences from place to place as regards the commencement of the spawning period. In general, the East Coast of Scotland is a late spawning area, whereas, in the Moray Firth, and especially in the Dornoch Firth, spawning begins early, and in favourable years a few plaice may spawn even late in November.

Dr. Bowman discusses the relationship between the spawning localities of the plaice and the movement of the surface waters. His paper is illustrated by a chart showing the chief spawning areas of the plaice in the northern part of the North Sea.

We have the honour to be,

SIR,

Your most obedient Servants,

ANGUS SUTHERLAND, *Chairman.*
W. LYON MACKENZIE, *Deputy-Chairman.*
D'ARCY W. THOMPSON.
BREADALBANE.
JAMES ARCHIBALD.
JOHN H. IRVIN.
MALCOLM SMITH.

DAVID T. JONES, *Secretary.*

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No.	DISTRICTS.	Number.	Tonnage.	Value of Boats.	Value of Nets.			
					Drift.	Seine.	Other Kinds.	Total.
	EAST COAST.			£	£	£	£	£
1	Eymouth	81	907	5,447	4,118	..	..	4,118
2	Leith	263	2,790	18,544	10,382	394	1,296	12,072
3	Anstruther	347	7,592	43,161	34,115	..	764	34,879
4	Montrose	250	2,456	8,719	7,110	..	200	7,310
5	Stonehaven	61	542	2,129	1,912	..	5	1,917
6	Aberdeen	70	358	1,119	730	..	..	730
7	Peterhead	198	2,153	18,084	9,460	..	..	9,460
8	Fraserburgh	441	6,610	46,762	36,480	..	77	36,557
9	Banff	257	3,844	19,864	13,213	..	1,169	14,382
10	Buckie	381	9,903	82,018	31,640	..	1,800	33,440
11	Findhorn	167	3,151	20,005	16,560	..	1,680	18,240
12	Cromarty	141	1,231	7,595	5,620	16	225	5,861
13	Helmsdale	116	625	3,302	2,190	..	288	2,478
14	Lybster	40	274	752	701	..	..	701
15	Wick	261	2,037	7,054	7,750	..	329	8,079
	East Coast Totals carried down	3,074	44,473	284,555	181,981	410	7,833	190,224
	Orkney and Shetland.							
16	Orkney	291	1,996	6,580	4,463	..	..	4,463
17	Shetland	522	6,309	32,090	17,760	..	..	17,760
	Orkney and Shetland Totals carried down	813	8,305	38,670	22,223	..	..	22,223
	WEST COAST.							
18	Stornoway	535	4,263	22,872	10,783	..	..	10,783
19	Barra	310	1,736	6,276	5,001	..	..	5,001
20	Loch Broom	338	1,293	7,682	7,418	..	1,670	9,088
21	Loch Carron and Skye	368	1,177	4,291	5,035	..	340	5,375
22	Fort-William	183	460	1,635	1,102	41	154	1,297
23	Campbeltown	183	428	1,684	271	168	50	489
24	Inveraray	147	477	2,292	258	700	111	1,069
25	Rothsay	73	153	623	289	60	220	569
26	Greenock	97	191	752	112	70	105	287
27	Ballantrae	238	487	2,236	550	141	1,380	2,071
	West Coast Totals carried down	2,472	10,668	50,343	30,819	1,180	4,030	36,029
	Totals brought down.							
	East Coast	3,074	44,473	284,555	181,981	410	7,833	190,224
	Orkney and Shetland	813	8,305	38,670	22,223	..	..	22,223
	West Coast	2,472	10,668	50,343	30,819	1,180	4,030	36,029
	Grand Totals for 1914	6,359	63,446	373,568	235,023	1,590	11,863	248,476
	Grand Totals for 1913	6,762	71,169	439,947	274,893	2,396	14,066	291,355
	Increase in 1914	403	7,723	66,379	39,870	806	2,203	42,879
	Decrease in 1914							

No. I.

and Men employed in the Scottish Fishing Industry in the Year 1914.

(excluding Trawlers).

Value of Lines.				Value of Bush and Buoy Ropes and Stoppers.	Value of Crab and Lobster Creels.	Grand Total Value.	No.
Great.	Small.	Hand.	Total.				
£	£	£	£	£	£	£	
51	730	11	792	1,558	501	12,416	1
420	2,018	48	2,486	4,396	721	38,219	2
1,015	736	40	1,791	10,303	490	90,624	3
320	968	14	1,302	4,376	469	22,176	4
257	700	18	975	856	232	6,109	5
..	594	9	603	453	66	2,971	6
797	3,900	65	4,762	4,970	174	37,410	7
572	1,676	166	2,414	13,578	648	99,959	8
600	2,064	30	2,694	4,651	166	41,757	9
2,144	3,224	42	5,410	11,978	80	132,926	10
80	1,940	20	2,040	5,175	30	45,490	11
8	708	13	729	1,669	47	15,901	12
144	1,275	66	1,485	992	117	8,374	13
16	125	29	170	175	24	1,822	14
92	481	194	767	2,860	1,223	19,983	15
6,516	21,139	765	28,420	67,950	4,988	576,137	
80	95	74	249	2,193	1,649	15,134	16
1,188	1,506	215	2,909	11,257	30	64,046	17
1,268	1,601	289	3,158	13,450	1,679	79,180	
3,332	1,386	94	4,812	3,139	976	42,582	18
457	228	41	726	1,983	837	14,823	19
415	890	130	1,435	1,136	906	20,247	20
530	172	50	752	548	654	11,620	21
223	131	26	380	387	444	4,143	22
74	84	16	174	279	546	3,172	23
23	108	..	131	193	176	3,861	24
..	82	4	86	115	16	1,409	25
14	74	19	107	50	48	1,244	26
390	376	18	784	198	286	5,575	27
5,458	3,531	398	9,387	8,028	4,889	108,676	
6,516	21,139	765	28,420	67,970	4,988	576,137	
1,268	1,601	289	3,158	13,450	1,679	79,180	
5,458	3,531	398	9,387	8,028	4,889	108,676	
13,242	26,271	1,452	40,965	89,428	11,556	763,993	
14,426	28,490	1,464	44,380	98,695	12,035	886,412	
1,184	2,219	12	3,415	9,267	479	122,419	

APPENDIX A.—

MEANS OF CAPTURE.—Particulars relating to the Vessels, Gear,

I. SAILING VESSELS

No.	DISTRICTS.	Area of Netting.			
		Drift.	Seine.	Other Kinds.	Total.
	EAST COAST.	Sq. Yds.	Sq. Yds.	Sq. Yds.	Sq. Yds.
1	Eymouth	1,098,000	..	..	1,098,000
2	Leith	3,061,800	27,900	212,800	3,302,500
3	Anstruther	11,754,000	..	299,400	12,053,400
4	Montrose	1,902,000	..	20,124	1,922,124
5	Stonehaven	573,600	..	2,880	576,480
6	Aberdeen	219,000	..	..	219,000
7	Peterhead	2,838,000	..	..	2,838,000
8	Fraserburgh	10,944,000	..	36,960	10,980,960
9	Banff	4,530,000	..	191,160	4,721,160
10	Buckie	10,848,000	..	1,512,000	12,360,000
11	Findhorn	5,382,000	..	1,310,400	6,692,400
12	Cromarty	1,676,000	2,520	18,000	1,696,520
13	Helmsdale	838,500	..	51,840	890,340
14	Lybster	263,900	..	..	263,900
15	Wick	2,707,900	..	170,240	2,878,140
	East Coast Totals carried down . .	58,636,700	30,420	3,825,804	62,492,924
	Orkney and Shetland.				
16	Orkney	1,530,000	..	..	1,530,000
17	Shetland	5,328,000	..	..	5,328,000
	Orkney and Shetland Totals carried down . .	6,858,000	..	..	6,858,000
	WEST COAST.				
18	Stornoway	4,587,000	..	..	4,587,000
19	Barra	1,719,600	..	..	1,719,600
20	Loch Broom	2,664,000	..	585,000	3,249,000
21	Loch Carron and Skye .	1,678,000	..	122,400	1,800,400
22	Fort-William	480,000	7,200	46,400	533,600
23	Campbeltown	133,680	36,000	20,000	189,680
24	Inveraray	86,000	168,000	33,300	287,300
25	Rothsay	137,000	24,000	110,000	271,000
26	Greenock	46,080	21,000	34,350	101,430
27	Ballantrae	275,000	23,100	213,830	511,930
	West Coast Totals carried down . .	11,806,360	279,300	1,165,280	13,250,940
	Totals brought down.				
	East Coast	58,636,700	30,420	3,825,804	62,492,924
	Orkney and Shetland . .	6,858,000	..	..	6,858,000
	West Coast	11,806,360	279,300	1,165,280	13,250,940
	Grand Totals for 1914 . .	77,301,060	309,720	4,991,084	82,601,864
	Grand Totals for 1913 . .	90,163,460	502,700	4,442,754	95,108,914
	Increase in 1914	12,862,400	192,980	548,330	12,507,050
	Decrease in 1914 . . . .	..	..	..	..

No. I—*continued.*

and Men employed in the Scottish Fishing Industry in the Year 1914.

(excluding Trawlers)—*continued.*

Length of Lines.				Bush and Buoy Ropes and Stoppers.	Crab and Lobster Creels.	Number of Fisher- men and Boys.			No.
Great.	Small.	Hand.	Total.			Resi- dent.	Non- Resi- dent.	Total.	
Yards.	Yards.	Yards.	Yards.	Yards.	No.				
40,800	438,000	8,800	487,600	115,260	2,870	156	..	156	1
256,000	943,560	18,000	1,217,560	269,000	4,735	1,103	..	1,103	2
730,800	441,600	32,760	1,205,160	598,320	3,920	823	205	1,028	3
140,800	677,800	13,500	832,100	227,840	1,880	413	..	413	4
172,160	383,360	15,240	570,760	130,960	1,545	158	..	158	5
..	364,800	4,860	369,660	48,120	330	138	..	138	6
446,040	2,080,400	54,720	2,581,160	214,200	870	549	75	624	7
408,480	1,184,160	158,160	1,750,800	698,000	3,240	1,216	58	1,274	8
360,000	1,233,400	35,760	1,634,160	354,644	1,106	660	..	660	9
1,286,400	1,934,400	51,480	3,272,280	732,240	530	1,029	..	1,029	10
48,000	1,396,800	24,480	1,469,280	235,980	200	613	9	622	11
5,760	509,760	6,180	521,700	166,900	325	614	..	614	12
115,200	734,400	31,440	881,040	119,400	780	324	..	324	13
11,520	72,000	23,040	106,560	16,300	120	122	..	122	14
59,520	217,920	153,120	430,560	203,940	4,880	698	10	708	15
4,081,480	12,617,360	631,540	17,330,380	4,131,194	27,331	8,616	357	8,973	
46,080	68,400	71,040	185,520	218,050	10,990	846	..	846	16
1,140,000	1,205,280	171,000	2,516,280	569,940	200	2,222	..	2,222	17
1,186,080	1,273,680	242,040	2,701,800	787,990	11,190	3,068	..	3,068	
2,321,640	1,140,480	74,160	3,536,280	485,302	7,836	4,015	..	4,015	18
219,000	71,720	32,520	323,240	323,208	5,580	966	..	966	19
207,500	404,500	89,040	701,040	122,900	5,175	959	..	959	20
407,040	137,280	59,700	604,020	134,900	4,360	830	..	830	21
117,760	47,160	18,330	183,280	46,140	2,220	400	..	400	22
53,400	68,840	12,440	134,680	81,680	2,820	212	..	212	23
13,500	67,680	..	81,180	38,122	1,000	209	..	209	24
..	42,000	2,400	44,400	15,940	140	70	..	70	25
10,080	68,800	13,550	92,430	11,386	320	95	..	95	26
280,800	288,000	4,680	573,480	91,748	1,895	240	..	240	27
3,630,720	2,336,460	306,850	6,274,030	1,351,326	31,346	7,996	..	7,996	
4,081,480	12,617,360	631,540	17,330,380	4,131,194	27,331	8,616	357	8,973	
1,186,080	1,273,680	242,040	2,701,800	787,990	11,190	3,068	..	3,068	
3,630,720	2,336,460	306,850	6,274,030	1,351,326	31,346	7,996	..	7,996	
8,898,280	16,227,500	1,180,430	26,306,210	6,270,510	69,867	19,680	357	20,037	
9,754,980	17,460,160	1,179,890	28,395,030	7,031,962	73,040	21,408	432	21,840	
856,700	1,232,660	540	2,088,820	761,452	3,173	1,728	75	1,803	

APPENDIX A.—

MEANS OF CAPTURE.—Particulars relating to the Vessels, Gear,

II. MOTOR

No.	DISTRICTS.	Number.	Tonnage.	Value of Vessels.	Value of Fishing		
					Nets.	Lines.	Bush and Buoy Ropes.
EAST COAST.							
				£	£	£	£
1	Eyemouth	54	1,550	36,400	14,994	221	4,822
2	Leith	31	625	13,710	2,224	254	1,008
3	Anstruther	51	1,084	21,764	5,459	635	1,557
4	Montrose	68	843	18,340	3,477	2,412	1,985
5	Stonehaven	3	38	570	..	60	6
6	Aberdeen	1	15	500	60	12	15
7	Peterhead	1	42	750	240	1	116
8	Fraserburgh	29	998	18,430	5,040	380	2,100
9	Banff	37	381	7,600	1,140	768	273
10	Buckie	15	617	14,490	3,120	48	936
11	Findhorn	11	361	6,440	2,540	150	755
12	Cromarty . . . . .	..	..	..	..	..	..
13	Helmsdale	4	62	1,398	445	36	174
14	Lybster . . . . .	..	..	..	..	..	..
15	Wick	56	1,023	15,655	3,429	132	1,140
	East Coast Totals carried down	361	7,639	156,107	42,168	5,109	14,887
Orkney and Shetland.							
16	Orkney	22	71	1,400	..	106	38
17	Shetland	16	147	4,495	864	673	83
	Orkney and Shetland Totals carried down	38	218	5,895	864	779	121
WEST COAST.							
18	Stornoway	5	128	1,900	360	52	195
19	Barra	4	70	1,400	320	36	140
20	Loch Broom	3	25	425	344	45	16
21	Loch Carron and Skye	29	313	5,360	1,185	149	233
22	Fort-William	15	82	2,464	369	173	83
23	Campbeltown	94	889	11,740	5,585	236	355
24	Inveraray	58	521	6,740	2,160	..	277
25	Rothsay	12	90	1,425	335	61	48
26	Greenock	11	62	1,315	353	21	83
27	Ballantrae	64	518	7,410	2,768	611	243
	West Coast Totals carried down	295	2,698	40,179	13,779	1,384	1,673
Totals brought down.							
	East Coast	361	7,639	156,107	42,168	5,109	14,887
	Orkney and Shetland	38	218	5,895	864	779	121
	West Coast	295	2,698	40,179	13,779	1,384	1,673
	Grand Totals for 1914	694	10,555	202,181	56,811	7,272	16,681
	Grand Totals for 1913	523	7,382	147,436	41,114	4,882	12,199
	Increase in 1914	171	3,173	54,745	15,697	2,390	4,482
	Decrease in 1914 . . . . .	..	..	..	..	..	..

No. I—continued.

and Men employed in the Scottish Fishing Industry in the Year 1914.

FISHING VESSELS.

Gear.	Total Value of Vessels and Gear.	Extent of Fishing Gear.			Crab and Lobster Creels.	Number of Fishermen and Boys.			No.
		Nets.	Lines.	Bush and Buoy Ropes.		Resident.	Non-Resident.	Total.	
Crab and Lobster Creels.									
£	£	Sq. Yds.	Yards.	Yards.	No.				
76	56,513	4,034,400	157,000	178,688	430	276	..	276	1
..	17,196	667,200	99,280	40,800	..	158	..	158	2
45	29,460	1,844,960	423,000	84,342	360	180	28	208	3
633	26,847	930,000	1,294,040	164,680	2,530	292	..	292	4
..	636	..	33,600	2,000	..	12	..	12	5
..	587	18,000	5,760	2,200	..	5	..	5	6
..	1,107	72,000	1,200	4,080	..	4	1	5	7
..	26,010	1,512,000	273,600	73,000	..	129	..	129	8
..	9,781	312,000	460,800	26,420	..	130	..	130	9
..	18,594	936,000	14,400	42,120	..	84	..	84	10
..	9,885	842,600	108,000	33,630	..	74	..	74	11
..	..	..	..	..	..	..	..	..	12
..	2,053	143,000	20,160	7,740	..	8	..	8	13
..	..	..	..	..	..	..	..	..	14
219	20,575	1,247,340	85,440	69,480	870	146	..	146	15
973	219,244	12,559,500	2,976,280	729,180	4,190	1,498	29	1,527	
164	1,708	..	74,160	15,700	1,080	59	..	59	16
..	6,115	240,000	564,960	10,300	..	63	..	63	17
164	7,823	240,000	639,120	26,000	1,080	122	..	122	
..	2,507	119,700	41,200	7,200	..	27	..	27	18
..	1,896	96,000	16,800	6,720	..	24	..	24	19
..	830	118,500	21,540	1,900	..	12	..	12	20
72	6,999	403,900	116,400	19,060	480	117	..	117	21
94	3,183	142,440	85,060	8,870	470	43	..	43	22
44	17,960	1,380,000	206,280	68,850	220	428	..	428	23
36	9,213	594,000	..	35,604	200	226	..	226	24
..	1,869	106,000	40,360	6,920	..	29	..	29	25
96	1,868	122,950	16,500	15,020	640	42	..	42	26
..	11,032	1,142,800	435,600	79,640	..	208	..	208	27
342	57,357	4,226,290	979,740	249,784	2,010	1,156	..	1,156	
973	219,244	12,559,500	2,976,280	729,180	4,190	1,498	29	1,527	
164	7,823	240,000	639,120	26,000	1,080	122	..	122	
342	57,357	4,226,290	979,740	249,784	2,010	1,156	..	1,156	
1,479	284,424	17,025,790	4,595,140	1,004,964	7,280	2,776	29	2,805	
904	206,535	12,572,310	3,402,050	707,866	5,110	2,236	10	2,246	
575	77,889	4,453,480	1,193,090	297,098	2,170	540	19	559	
..	

APPENDIX A.—

MEANS OF CAPTURE.—Particulars relating to the Vessels, Gear,

III. (a) STEAM DRIFTERS

No.	DISTRICTS.	Number.	Tonnage.	Value of Vessels.	Value of Fishing Gear.			Total Value of Vessels and Gear.
					Nets.	Lines.	Bush & Buoy Ropes	
	EAST COAST.							
1	Eymouth . . .	19	684	£ 41,120	£ 7,110	£ 487	£ 2,395	£ 51,112
2	Leith . . .	14	532	27,600	2,800	800	1,370	32,570
3	Anstruther . . .	65	2,120	119,080	17,643	4,248	5,965	146,936
4	Montrose . . .	9	303	19,500	3,420	450	1,260	24,630
5	Stonehaven . . .	..	..	..	..	..	..	..
6	Aberdeen . . .	65	3,100	151,030	14,760	6,393	6,273	178,456
7	Peterhead . . .	136	3,698	353,600	38,080	3,313	19,543	414,536
8	Fraserburgh . . .	99	3,500	236,800	29,700	370	9,900	276,770
9	Banff . . .	100	3,166	200,800	15,750	510	5,564	222,624
10	Buckie . . .	298	8,584	685,400	89,760	1,176	21,456	797,792
11	Findhorn . . .	132	4,416	303,600	40,880	240	10,560	355,280
12	Cromarty . . .	..	..	..	..	..	..	..
13	Helmsdale . . .	9	210	10,773	2,430	360	864	14,427
14	Lybster . . .	..	..	..	..	..	..	..
15	Wick . . .	23	628	40,480	5,520	17	1,514	47,531
	East Coast Totals carried down	969	30,941	2,189,783	267,853	18,364	86,664	2,562,664
	Orkney and Shetland.							
16	Orkney . . .	..	..	..	..	..	..	..
17	Shetland . . .	8	280	12,000	1,600	197	800	14,597
	Orkney and Shetland Totals carried down	8	280	12,000	1,600	197	800	14,597
	WEST COAST.							
18	Stornoway . . .	4	156	4,000	640	133	240	5,013
19	Barra . . .	..	..	..	..	..	..	..
20	Loch Broom . . .	..	..	..	..	..	..	..
21	Loch Carron and Skye . . .	..	..	..	..	..	..	..
22	Fort-William . . .	..	..	..	..	..	..	..
23	Campbeltown . . .	..	..	..	..	..	..	..
24	Inveraray . . .	..	..	..	..	..	..	..
25	Rothersay . . .	..	..	..	..	..	..	..
26	Greenock . . .	..	..	..	..	..	..	..
27	Ballantrae . . .	..	..	..	..	..	..	..
	West Coast Totals carried down.	4	156	4,000	640	133	240	5,013
	Totals brought down.							
	East Coast . . .	969	30,941	2,189,783	267,853	18,364	86,664	2,562,664
	Orkney and Shetland . . .	8	280	12,000	1,600	197	800	14,597
	West Coast . . .	4	156	4,000	640	133	240	5,013
	Grand Totals for 1914 . . .	981	31,377	2,205,783	270,093	18,694	87,704	2,582,274
	Grand Totals for 1913 . . .	884	24,708	2,051,980	245,622	19,494	78,246	2,395,342
	Increase in 1914 . . .	97	6,669	153,803	24,471	..	9,458	186,932
	Decrease in 1914 . . .	..	..	..	..	800	..	..

No. I—continued.

and Men employed in the Scottish Fishing Industry in the Year 1914.

AND LINERS—SCOTTISH.

Extent of Fishing Gear.			Number of Fishermen and Boys.			DISTRICTS.	No.
Nets.	Lines.	Bush and Buoy Ropes.	Resident.	Non-Resident.	Total.		
Sq. Yds.	Yards.	Yards.				EAST COAST.	
1,896,000	293,700	82,640	133	..	133	Eymouth.	1
840,000	584,000	50,500	126	..	126	Leith.	2
6,048,000	2,601,900	273,360	380	60	440	Anstruther.	3
972,000	345,600	47,880	67	..	67	Montrose.	4
4,428,000	2,736,000	305,680	585	..	585	Stonehaven.	5
11,424,000	1,827,200	728,800	680	204	884	Aberdeen.	6
8,910,000	270,000	426,000	606	..	606	Peterhead.	7
5,400,000	306,000	322,280	667	..	667	Fraserburgh.	8
27,122,400	627,200	1,180,080	1,935	244	2,179	Banff.	9
13,407,600	144,000	522,720	948	112	1,060	Buckie.	10
702,000	144,000	33,120	28	..	28	Findhorn.	11
1,794,000	13,800	78,890	186	20	206	Cromarty.	12
						Helmsdale.	13
						Lybster.	14
						Wick.	15
82,944,000	9,893,400	4,051,950	6,341	640	6,981	East Coast Totals carried down.	
						Orkney and Shetland.	
480,000	131,880	35,150	63	10	73	Orkney.	16
						Shetland.	17
480,000	131,880	35,150	63	10	73	Orkney and Shetland Totals carried down.	
						WEST COAST.	
201,600	48,960	13,760	32	..	32	Stornoway.	18
..	..	..	..	..	..	Barra.	19
..	..	..	..	..	..	Loch Broom.	20
..	..	..	..	..	..	Loch Carron and Skye.	21
..	..	..	..	..	..	Fort-William.	22
..	..	..	..	..	..	Campbeltown.	23
..	..	..	..	..	..	Inveraray.	24
..	..	..	..	..	..	Rothsay.	25
..	..	..	..	..	..	Greenock.	26
..	..	..	..	..	..	Ballantrae.	27
201,600	48,960	13,760	32	..	32	West Coast Totals carried down.	
						Totals brought down.	
82,944,000	9,893,400	4,051,950	6,341	640	6,981	East Coast.	
480,000	131,880	35,150	63	10	73	Orkney and Shetland.	
201,600	48,960	13,760	32	..	32	West Coast.	
83,625,600	10,074,240	4,100,860	6,436	650	7,086	Grand Totals for 1914.	
76,128,600	10,688,580	3,744,820	5,839	697	6,536	Grand Totals for 1913.	
7,497,000	..	356,040	597	..	550	Increase in 1914.	
..	614,340	..	..	47	..	Decrease in 1914.	

APPENDIX A.—

MEANS OF CAPTURE.—Particulars relating to the Vessels, Gear,

III. (b) STEAM DRIFTERS AND

No.	DISTRICTS.	Number.	Tonnage.	Value of Vessels.	Value of Fishing Gear.			Total Value of Vessels and Gear.
					Nets.	Lines.	Bush & Buoy Ropes.	
	EAST COAST.			£	£	£	£	£
1	Eyemouth . . . .	..	..	..	..	..	..	..
2	Leith . . . . .	..	..	..	..	..	..	..
3	Anstruther . . . .	..	..	..	..	..	..	..
4	Montrose . . . . .	..	..	..	..	..	..	..
5	Stonehaven . . . .	..	..	..	..	..	..	..
6	Aberdeen	48	1,762	100,000	9,000	370	4,990	114,360
7	Peterhead	50	1,300	130,000	14,000	60	5,000	149,060
8	Fraserburgh	20	760	50,000	6,400	..	2,000	58,400
9	Banff . . . . .	..	..	..	..	..	..	..
10	Buckie . . . . .	..	..	..	..	..	..	..
11	Findhorn . . . . .	..	..	..	..	..	..	..
12	Cromarty . . . . .	..	..	..	..	..	..	..
13	Helmsdale . . . . .	..	..	..	..	..	..	..
14	Lybster . . . . .	..	..	..	..	..	..	..
15	Wick	26	780	57,200	7,800	20	1,712	66,732
	East Coast Totals carried down	144	4,602	337,200	37,200	450	13,702	388,552
	Orkney and Shetland.							
16	Orkney	6	210	13,200	1,350	6	600	15,156
17	Shetland	306	10,710	673,200	68,850	306	30,600	772,956
	Orkney and Shetland Totals carried down	312	10,920	686,400	70,200	312	31,200	788,112
	WEST COAST.							
18	Stornoway . . . . .	..	..	..	..	..	..	..
19	Barra . . . . .	..	..	..	..	..	..	..
20	Loch Broom . . . . .	..	..	..	..	..	..	..
21	Loch Carron and Skye . . . . .	..	..	..	..	..	..	..
22	Fort-William . . . . .	..	..	..	..	..	..	..
23	Campbeltown . . . . .	..	..	..	..	..	..	..
24	Inveraray . . . . .	..	..	..	..	..	..	..
25	Rothsay . . . . .	..	..	..	..	..	..	..
26	Greenock . . . . .	..	..	..	..	..	..	..
27	Ballantrae . . . . .	..	..	..	..	..	..	..
	West Coast Totals carried down . . . .	..	..	..	..	..	..	..
	Totals brought down.							
	East Coast	144	4,602	337,200	37,200	450	13,702	388,552
	Orkney and Shetland	312	10,920	686,400	70,200	312	31,200	788,112
	West Coast . . . . .	..	..	..	..	..	..	..
	Grand Totals for 1914	456	15,522	1,023,600	107,400	762	44,902	1,176,664
	Grand Totals for 1913	457	15,287	1,004,800	105,480	1,035	46,248	1,157,563
	Increase in 1914 . . . . .	..	235	18,800	1,920	..	..	19,101
	Decrease in 1914	1	..	..	..	273	1,346	..

No. I.—continued.

and Men employed in the Scottish Fishing Industry in the Year 1914.

LINERS—OTHER THAN SCOTTISH.

Extent of Fishing Gear.			Number of Fishermen and Boys.			DISTRICTS.	No.
Nets.	Lines.	Bush and Buoy Ropes.	Resident.	Non-Resident.	Total.		
Sq. Yds.	Yards.	Yards.				EAST COAST.	
..	..	..	..	..	..	Eyemouth.	1
..	..	..	..	..	..	Leith.	2
..	..	..	..	..	..	Anstruther.	3
..	..	..	..	..	..	Montrose.	4
..	..	..	..	..	..	Stonehaven.	5
2,700,000	144,000	205,300	27	405	432	Aberdeen.	6
4,200,000	60,000	240,000	..	450	450	Peterhead.	7
1,920,000	..	80,000	20	160	180	Fraserburgh.	8
..	..	..	..	..	..	Banff.	9
..	..	..	..	..	..	Buckie.	10
..	..	..	..	..	..	Findhorn.	11
..	..	..	..	..	..	Cromarty.	12
..	..	..	..	..	..	Helmsdale.	13
..	..	..	..	..	..	Lybster.	14
2,535,000	15,600	89,180	..	234	234	Wick.	15
11,355,000	219,600	614,480	47	1,249	1,296	East Coast Totals carried down.	
						Orkney and Shetland.	
360,000	5,760	24,000	..	58	58	Orkney.	16
18,360,000	293,760	1,224,000	..	3,060	3,060	Shetland.	17
18,720,000	299,520	1,248,000	..	3,118	3,118	Orkney and Shetland Totals carried down.	
						WEST COAST.	
..	..	..	..	..	..	Stornoway.	18
..	..	..	..	..	..	Barra.	19
..	..	..	..	..	..	Loch Broom.	20
..	..	..	..	..	..	Loch Carron and Skye.	21
..	..	..	..	..	..	Fort-William.	22
..	..	..	..	..	..	Campbeltown.	23
..	..	..	..	..	..	Inveraray.	24
..	..	..	..	..	..	Rothsay.	25
..	..	..	..	..	..	Greenock.	26
..	..	..	..	..	..	Ballantrae.	27
..	..	..	..	..	..	West Coast Totals carried down.	
						Totals brought down.	
11,355,000	219,600	614,480	47	1,249	1,296	East Coast.	
18,720,000	299,520	1,248,000	..	3,118	3,118	Orkney and Shetland.	
..	..	..	..	..	..	West Coast.	
30,075,000	519,120	1,862,480	47	4,367	4,414	Grand Totals for 1914.	
29,046,000	704,700	1,854,400	45	4,445	4,490	Grand Totals for 1913.	
1,029,000	..	8,080	2	..	..	Increase in 1914.	
..	185,580	..	..	78	76	Decrease in 1914.	

APPENDIX A.—

MEANS OF CAPTURE.—Particulars relating to the Vessels, Gear,

III. (c) STEAM DRIFTERS

No.	DISTRICTS.	Number.	Tonnage.	Value of Vessels.	Value of Fishing Gear.			Total Value of Vessels and Gear.
					Nets.	Lines.	Bush & Buoy Ropes.	
EAST COAST.								
				£	£	£	£	£
1	Eymouth	19	684	41,120	7,110	487	2,395	51,112
2	Leith	14	532	27,600	2,800	800	1,370	32,570
3	Anstruther	65	2,120	119,080	17,643	4,248	5,965	146,936
4	Montrose	9	303	19,500	3,420	450	1,260	24,630
5	Stonehaven . . . . .	..	..	..	..	..	..	..
6	Aberdeen	113	4,862	251,030	23,760	6,763	11,263	292,816
7	Peterhead	186	4,998	483,600	52,080	3,373	24,543	563,596
8	Fraserburgh	119	4,260	286,800	36,100	370	11,900	333,170
9	Banff	100	3,166	200,800	15,750	510	5,564	222,624
10	Buckie	298	8,584	685,400	89,760	1,176	21,456	797,792
11	Findhorn	132	4,416	303,600	40,880	240	10,760	355,280
12	Cromarty . . . . .	..	..	..	..	..	..	..
13	Helmsdale	9	210	10,773	2,430	360	864	14,427
14	Lybster . . . . .	..	..	..	..	..	..	..
15	Wick	49	1,408	97,680	13,320	37	3,226	114,263
	East Coast Totals carried down . .	1,113	35,543	2,526,983	305,053	18,814	100,366	2,951,216
Orkney and Shetland.								
16	Orkney	6	210	13,200	1,350	6	600	15,156
17	Shetland	314	10,990	685,200	70,450	503	31,400	787,553
	Orkney and Shetland Totals carried down . .	320	11,200	698,400	71,800	509	32,000	802,709
WEST COAST.								
18	Stornoway	4	156	4,000	640	133	240	5,013
19	Barra . . . . .	..	..	..	..	..	..	..
20	Loch Broom . . . . .	..	..	..	..	..	..	..
21	Loch Carron and Skye . .	..	..	..	..	..	..	..
22	Fort-William . . . . .	..	..	..	..	..	..	..
23	Campbeltown . . . . .	..	..	..	..	..	..	..
24	Inveraray . . . . .	..	..	..	..	..	..	..
25	Rothsay . . . . .	..	..	..	..	..	..	..
26	Greenock . . . . .	..	..	..	..	..	..	..
27	Ballantrae . . . . .	..	..	..	..	..	..	..
	West Coast Totals carried down . .	4	156	4,000	640	133	240	5,013
Totals brought down.								
	East Coast	1,113	35,543	2,526,983	305,053	18,814	100,366	2,951,216
	Orkney and Shetland . .	320	11,200	698,400	71,800	509	32,000	802,709
	West Coast	4	156	4,000	640	133	240	5,013
	Grand Totals for 1914 . .	1,437	46,899	3,229,383	377,493	19,456	132,606	3,758,938
	Grand Totals for 1913 . .	1,341	39,995	3,056,780	351,102	20,529	124,494	3,552,905
	Increase in 1914	96	6,904	172,603	26,391	..	8,112	206,033
	Decrease in 1914 . . . .	..	..	..	..	1,073	..	..

No. I.—continued.

and Men employed in the Scottish Fishing Industry in the Year 1914.

AND LINERS—TOTALS.

Extent of Fishing Gear.			Number of Fishermen and Boys.			DISTRICTS.	No.
Nets.	Lines.	Bush and Buoy Ropes.	Resident.	Non-Resident.	Total.		
Sq. Yds.	Yards.	Yards.				EAST COAST.	
1,896,000	293,700	82,640	133	..	133	Eyemouth.	1
840,000	584,000	50,500	126	..	126	Leith.	2
6,048,000	2,601,900	273,360	389	60	440	Anstruther.	3
972,000	345,600	47,880	67	..	67	Montrose.	4
7,128,000	2,880,000	510,980	612	405	1,017	Stonehaven.	5
15,624,000	1,887,200	968,800	680	654	1,334	Aberdeen.	6
10,830,000	270,000	503,000	626	160	786	Peterhead.	7
5,400,000	306,000	322,280	667	..	667	Fraserburgh.	8
27,122,400	627,200	1,180,080	1,935	244	2,179	Banff.	9
13,407,600	144,000	522,720	948	112	1,060	Buckie.	10
702,000	144,000	33,120	28	..	28	Findhorn.	11
4,329,000	29,400	168,070	186	254	440	Cromarty.	12
			..	..	..	Helmsdale.	13
			..	..	..	Lybster.	14
			..	..	..	Wick.	15
94,299,000	10,113,000	4,666,430	6,388	1,889	8,277	East Coast Totals carried down.	
						Orkney and Shetland.	
360,000	5,760	24,000	..	58	58	Orkney.	16
18,840,000	425,640	1,259,150	63	3,070	3,133	Shetland.	17
19,200,000	431,400	1,283,150	63	3,128	3,191	Orkney and Shetland Totals carried down.	
						WEST COAST.	
201,600	48,960	13,760	32	..	32	Stornoway.	18
..	..	..	..	..	..	Barra.	19
..	..	..	..	..	..	Loch Broom.	20
..	..	..	..	..	..	Loch Carron and Skye.	21
..	..	..	..	..	..	Fort-William.	22
..	..	..	..	..	..	Campbeltown.	23
..	..	..	..	..	..	Inveraray.	24
..	..	..	..	..	..	Rothsay.	25
..	..	..	..	..	..	Greenock.	26
..	..	..	..	..	..	Ballantrae.	27
201,600	48,960	13,760	32	..	32	West Coast Totals carried down.	
						Totals brought down.	
94,299,000	10,113,000	4,666,430	6,388	1,889	8,277	East Coast.	
19,200,000	431,400	1,283,150	63	3,128	3,191	Orkney and Shetland.	
201,600	48,960	13,760	32	..	32	West Coast.	
113,700,600	10,593,360	5,963,340	6,483	5,017	11,500	Grand Totals for 1914.	
105,174,600	11,393,280	5,599,220	5,884	5,142	11,026	Grand Totals for 1913.	
8,526,000	..	364,120	599	..	474	Increase in 1914.	
..	799,920	..	..	125	..	Decrease in 1914.	

APPENDIX A.—

MEANS OF CAPTURE.—Particulars relating to the Vessels, Gear,

IV. TRAWLERS—STEAM

No.	DISTRICTS.	Scottish (Propelled by Steam).						Other than (Propelled			
		Number.	Tonnage.	Value.			Men Engaged.	Number.	Tonnage.	Value.	
				Vessels.	Fishing Gear.	Total.				Vessels.	Fishing Gear.
	EAST COAST.			£	£	£				£	£
1	Eymouth . . .	..	..	..	..	..	..	..	..	..	..
2	Leith . . .	49	3,029	183,550	7,450	191,000	450	3	82	9,000	450
3	Anstruther . . .	..	..	..	..	..	..	..	..	..	..
4	Montrose . . .	8	351	19,200	1,280	20,480	84	..	..	..	..
5	Stonehaven . . .	..	..	..	..	..	..	..	..	..	..
6	Aberdeen . . .	233	16,854	1,065,100	32,620	1,097,720	2,250	16	1161	68,200	2,240
7	Peterhead . . .	7	491	29,400	980	30,380	63	..	..	..	..
8	Fraserburgh . . .	1	57	2,000	150	2,150	9	..	..	..	..
9	Banff . . .	..	..	..	..	..	..	..	..	..	..
10	Buckie . . .	..	..	..	..	..	..	..	..	..	..
11	Findhorn . . .	..	..	..	..	..	..	..	..	..	..
12	Caomarty . . .	..	..	..	..	..	..	..	..	..	..
13	Helmsdale . . .	..	..	..	..	..	..	..	..	..	..
14	Lybster . . .	..	..	..	..	..	..	..	..	..	..
15	Wick . . .	..	..	..	..	..	..	..	..	..	..
	East Coast Totals carried down . . .	298	20,782	1,299,250	42,480	1,341,730	2,856	19	1243	77,200	2,690
	Orkney and Shetland.										
16	Orkney . . .	..	..	..	..	..	..	..	..	..	..
17	Shetland . . .	..	..	..	..	..	..	..	..	..	..
	Orkney and Shetland Totals carried down . . .	..	..	..	..	..	..	..	..	..	..
	WEST COAST.										
18	Stornoway . . .	..	..	..	..	..	..	..	..	..	..
19	Barra . . .	..	..	..	..	..	..	..	..	..	..
20	Loch Broom . . .	..	..	..	..	..	..	..	..	..	..
21	Loch Carron and Skye . . .	..	..	..	..	..	..	..	..	..	..
22	Fort-William . . .	..	..	..	..	..	..	..	..	..	..
23	Campbeltown . . .	..	..	..	..	..	..	..	..	..	..
24	Inveraray . . .	..	..	..	..	..	..	..	..	..	..
25	Rothsay . . .	..	..	..	..	..	..	..	..	..	..
26	Greenock . . .	14	859	60,200	1,750	61,950	123	..	..	..	..
27	Ballantrae . . .	1	64	4,000	120	4,120	8	..	..	..	..
	West Coast Totals carried down . . .	15	923	64,200	1,870	66,070	131	..	..	..	..
	Totals brought down.										
	East Coast . . .	298	20,782	1,299,250	42,480	1,341,730	2,856	19	1243	77,200	2,690
	Orkney and Shetland . . .	..	..	..	..	..	..	..	..	..	..
	West Coast . . .	15	923	64,200	1,870	66,070	131	..	..	..	..
	Grand Totals for 1914 . . .	313	21,705	1,363,450	44,350	1,407,800	2,987	19	1243	77,200	2,690
	Grand Totals for 1913 . . .	298	17,210	1,278,380	42,050	1,320,430	2,855	22	947	64,000	3,120
	Increase in 1914 . . .	15	4,495	85,070	2,300	87,370	132	..	296	13,200	..
	Decrease in 1914 . . .	..	..	..	..	..	..	3	..	..	430

Note 1.—The Returns relating to *Scottish* Trawlers are compiled according to the Districts to

Note 2.—The above return does not include 32 foreign trawlers, which fished more or less valued, including gear, at £164,480; and employed 416 men.

No. I.—continued.

and Men employed in the Scottish Fishing Industry in the Year 1914.

AND SAIL.

Scottish by Steam).		Scottish (Propelled by Sails).						TOTAL.						No.
Total.	Men Engaged.	Number.	Tonnage.	Value.			Men Engaged.	Number.	Tonnage.	Value.			Men Engaged.	
				Ves- sels.	Fish- ing Gear.	Total.				Vessels.	Fish- ing Gear.	Total.		
£				£	£	£				£	£	£		
9,450	27	..	..	..	..	..	..	52	3,111	192,550	7,900	200,450	477	1
..	8	351	19,200	1,280	20,480	84	2
..	3
70,440	152	..	..	..	..	..	..	249	18,015	1,133,300	34,860	1,168,160	2,402	4
..	7	491	29,400	980	30,380	63	5
..	1	57	2,000	150	2,150	9	6
..	7
..	8
..	9
..	10
..	11
..	12
..	13
..	14
..	15
79,890	179	..	..	..	..	..	..	317	22,025	1,376,450	45,170	1,421,620	3,035	
..	
..	16
..	17
..	
..	18
..	19
..	20
..	21
..	22
..	23
..	24
..	25
..	..	47	214	1,805	895	2,700	86	14	859	60,200	1,750	61,950	123	26
..	48	278	5,805	1,015	6,820	94	27
..	..	47	214	1,805	895	2,700	86	62	1,137	66,005	2,765	68,770	217	
79,890	179	..	..	..	..	..	..	317	22,025	1,376,450	45,170	1,421,620	3,035	
..	..	47	214	1,805	895	2,700	86	62	1,137	66,005	2,765	68,770	217	
79,890	179	47	214	1,805	895	2,700	86	379	23,162	1,442,455	47,935	1,490,390	3,252	
67,120	201	45	202	1,710	840	2,550	94	365	18,359	1,344,090	46,010	1,390,100	3,150	
12,770	..	2	12	95	55	150	..	14	4,803	98,365	1,925	100,290	102	
..	22	..	..	..	..	..	8	..	..	..	..	..	..

which they belong; but in the case of others, according to the Districts from which they fish, regularly from Aberdeen up to the outbreak of war. These vessels aggregated 2140 tons; were

APPENDIX A.—

MEANS OF CAPTURE.—Particulars relating to the Vessels, Gear,

V. TOTALS OF STEAM

[illegible]

and Men employed in the Scottish Fishing Industry in the Year 1914.
FISHING VESSELS.

AND LINERS.			TOTALS.						
Value of Vessels.	Value of Fishing Gear.	Total Value.	Number.	Tonnage.	Men Engaged.	Value of Vessels.	Value of Fishing Gear.	Grand Total Value.	No.
£ 41,120 27,600 119,080 19,500	£ 9,992 4,970 27,856 5,130	£ 51,112 32,570 146,936 24,630	19 66 65 17	684 3,643 2,120 654	133 603 440 151	£ 41,120 220,150 119,080 38,700	£ 9,992 12,870 27,856 6,410	£ 51,112 233,020 146,936 45,110	1 2 3 4 5
251,030 483,600 286,800 200,800 685,400 303,600	41,786 79,996 48,370 21,824 112,392 51,680	292,816 563,596 335,170 222,624 797,792 355,280	362 193 120 100 298 132	22,877 5,489 4,317 3,166 8,584 4,416	3,419 1,397 795 667 2,179 1,060	1,384,330 513,000 288,800 200,800 685,400 303,600	76,646 80,976 48,520 21,824 112,392 51,680	1,460,976 593,976 337,320 222,624 797,792 355,280	6 7 8 9 10 11 12 13 14 15
10,773 97,680	3,654 16,583	14,427 114,263	9 49	210 1,408	28 440	10,773 97,680	3,654 16,583	14,427 114,263	16 17
2,526,983	424,233	2,951,216	1,430	57,568	11,312	3,903,433	469,403	4,372,836	
13,200 685,200	1,956 102,353	15,156 787,553	6 314	210 10,990	58 3,133	13,200 685,200	1,956 102,353	15,156 787,553	16 17
698,400	104,309	802,709	320	11,200	3,191	698,400	104,309	802,709	
4,000	1,013	5,013	4 14 1	156 859 64	32 123 8	4,000 60,200 4,000	1,013 1,750 120	5,013 61,950 4,120	18 19 20 21 22 23 24 25 26 27
4,000	1,013	5,013	19	1,079	163	68,200	2,883	71,083	
2,526,983 698,400 4,000	424,233 104,309 1,013	2,951,216 802,709 5,013	1,430 320 19	57,568 11,200 1,079	11,312 3,191 163	3,903,433 698,400 68,200	469,403 104,309 2,883	4,372,836 802,709 71,083	
3,229,383 3,056,780	529,555 496,125	3,758,938 3,552,905	1,769 1,661	69,847 58,152	14,666 14,082	4,670,033 4,399,160	576,595 541,295	5,246,628 4,940,455	
172,608 ..	33,430 ..	206,033 ..	108 ..	11,695 ..	584 ..	270,873 ..	35,300 ..	306,173 ..	

APPENDIX A.—

MEANS OF CAPTURE.—Particulars relating to the Vessels, Gear,

VI. TOTALS OF

No.	DISTRICTS.	Number.	Tonnage.	Value.		
				Boats and Vessels.	Fishing Gear.	Total.
EAST COAST.						
				£	£	£
1	Eyemouth	154	3,141	82,967	37,074	120,041
2	Leith	360	7,058	252,404	36,031	288,435
3	Anstruther	463	10,796	184,005	83,015	267,020
4	Montrose	335	3,953	65,759	28,374	94,133
5	Stonehaven	64	580	2,699	4,046	6,745
6	Aberdeen	433	23,250	1,385,949	78,585	1,464,534
7	Peterhead	392	7,684	531,834	100,659	632,493
8	Fraserburgh	590	11,925	354,052	109,237	463,289
9	Banff	394	7,391	228,264	45,898	274,162
10	Buckie	694	19,104	781,908	167,404	949,312
11	Findhorn	310	7,928	330,045	80,610	410,655
12	Cromarty	141	1,231	7,595	8,306	15,901
13	Helmsdale	129	897	15,473	9,381	24,854
14	Lybster	40	274	752	1,070	1,822
15	Wick	366	4,468	120,389	34,432	154,821
	East Coast Totals	4,865	109,680	4,344,095	824,122	5,168,217
Orkney and Shetland.						
16	Orkney	319	2,277	21,180	10,818	31,998
17	Shetland	852	17,446	721,785	135,929	857,714
	Orkney and Shetland Totals	1,171	19,723	742,965	146,747	889,712
WEST COAST.						
18	Stornoway	544	4,547	28,772	21,330	50,102
19	Barra	314	1,806	7,676	9,043	16,719
20	Loch Broom	341	1,318	8,107	12,970	21,077
21	Loch Carron and Skye	397	1,490	9,651	8,968	18,619
22	Fort-William	198	542	4,009	3,227	7,236
23	Campbeltown	277	1,317	13,424	7,708	21,132
24	Inveraray	205	998	9,032	4,042	13,074
25	Rothsay	85	243	2,048	1,230	3,278
26	Greenock	122	1,115	62,267	2,795	65,062
27	Ballantrae	350	1,283	15,451	7,976	23,427
	West Coast Totals	2,833	14,639	160,527	79,289	239,816
	Totals for Scottish Vessels	8,394	127,297	4,146,787	894,404	5,041,191
	Totals for Vessels other than Scottish	475	16,765	1,100,800	155,754	1,256,554
	Grand Totals for 1914	8,869	144,062	5,247,587	1,050,158	6,297,745
	Grand Totals for 1913	8,991	136,905	4,968,253	1,047,699	6,035,952
	Increase in 1914	122	7,157	259,334	2,459	261,793
	Decrease in 1914 . . . . .	..	..	..	..	..

No. I.—continued.

and Men employed in the Scottish Fishing Industry in the Year 1914.

ALL VESSELS.

Area of Nets.	Length of Lines (including Buoy Ropes, etc.).	Crab and Lobster Creels.	Number of Fishermen and Boys.			DISTRICTS.	No.
			Resident.	Non-Resident.	Total.		
Sq. Yds.	Yards.	No.				EAST COAST.	
7,028,400	1,314,888	3,300	565	..	565	Eyemouth.	1
4,809,700	2,261,140	4,735	1,864	..	1,864	Leith.	2
19,946,360	5,186,082	4,280	1,383	293	1,676	Anstruther.	3
3,824,124	2,912,140	4,410	856	..	856	Montrose.	4
576,480	737,320	1,545	170	..	170	Stonehaven.	5
7,365,000	3,816,720	330	3,103	459	3,562	Aberdeen.	6
18,534,000	5,656,640	870	1,296	730	2,026	Peterhead.	7
23,322,960	3,571,400	3,240	1,980	218	2,198	Fraserburgh.	8
10,433,160	3,104,304	1,106	1,457	..	1,457	Banff.	9
40,418,400	5,868,320	530	3,048	244	3,292	Buckie.	10
20,942,600	2,513,610	200	1,635	121	1,756	Findhorn.	11
1,696,520	688,690	325	614	..	614	Cromarty.	12
1,735,340	1,205,460	780	360	..	360	Helmsdale.	13
263,900	122,860	120	122	..	122	Lybster.	14
8,454,480	986,890	5,750	1,030	264	1,294	Wick.	15
169,351,424	39,946,464	31,521	19,483	2,329	21,812	East Coast Totals.	
						Orkney and Shetland.	
1,890,000	523,190	12,070	905	58	963	Orkney.	16
24,408,000	5,346,270	200	2,348	3,070	5,418	Shetland.	17
26,298,000	5,869,460	12,270	3,253	3,128	6,381	Orkney and Shetland Totals.	
						WEST COAST.	
4,908,300	4,132,702	7,836	4,074	..	4,074	Stornoway.	18
1,815,600	669,968	5,580	990	..	990	Barra.	19
3,367,500	847,380	5,175	971	..	971	Loch Broom.	20
2,204,300	874,380	4,840	947	..	947	Loch Carron and Skye.	21
676,040	323,350	2,690	443	..	443	Fort-William.	22
1,569,680	491,490	3,040	640	..	640	Campbeltown.	23
881,300	154,906	1,200	435	..	435	Inveraray.	24
377,000	107,620	140	99	..	99	Rothsay.	25
224,380	135,336	960	260	..	260	Greenock.	26
1,654,730	1,180,468	1,895	542	..	542	Ballantrae.	27
17,678,830	8,917,600	33,356	9,401	..	9,401	West Coast Totals.	
183,253,254	52,351,924	77,147	31,965	1,036	33,001	Totals for Scottish Vessels.	
30,075,000	2,381,600	..	172	4,421	4,593	Totals for Vessels other than Scottish.	
213,328,254	54,733,524	77,147	32,137	5,457	37,594	Grand Totals for 1914.	
212,855,824	56,529,408	78,150	32,678	5,584	38,262	Grand Totals for 1913.	
472,430						Increase in 1914.	
..	1,795,884	1,003	541	127	668	Decrease in 1914.	

APPENDIX A.—

RETURN giving Particulars regarding the State of the Fisheries at each

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	* Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1913.	Decrease from 1913.						
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.													
<i>Eyemouth District.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
North Shields (Northumber- land)	103	4,195	.	.	12	50	3	5	118	4,250	.	397	2	.	.	745	.
Cullercoats	.	.	.	.	55	196	6	15	61	211	.	.	.	.	6	82	.
Blyth	16	353	1	20	9	27	1	2	17	402	1	.	.	266	.	18	.
Newbiggin	6	274	.	.	60	149	15	29	81	452	1	.	.	2	.	51	.
Cresswell	.	.	.	.	1	1	2	2	3	3	.	.	.	.	.	9	.
Hauxley	.	.	.	.	4	11	6	16	10	27	.	.	.	.	.	18	.
Amble	.	.	.	.	4	10	.	.	4	10	.	.	1	4	.	9	.
Alnmouth	.	.	.	.	1	2	4	9	5	11	.	1	.	.	.	6	.
Boulmer	.	.	.	.	15	42	4	10	19	52	.	1	1	.	.	24	.
Craster	.	.	2	50	17	44	.	.	19	94	.	2	.	.	.	28	.
Newton	.	.	.	.	11	29	6	13	17	42	.	5	.	.	.	24	.
Beadnell	3	96	2	32	18	53	8	16	31	197	.	.	2	54	2	35	.
North Sunderland	8	277	.	.	18	55	1	2	27	334	.	.	3	5	.	63	.
Holy Island	1	39	.	.	11	36	.	.	12	75	.	.	.	4	.	34	.
Spittal	1	47	.	.	6	27	1	3	8	77	.	.	.	.	1	21	.
Berwick	5	199	.	.	12	56	3	6	20	261	.	.	.	48	.	32	.
English Stations—Totals	133	5,480	5	102	254	788	60	128	452	6,498	2	406	9	383	9	1,199	.
Burnmouth (Berwickshire)	9	266	4	21	23	55	11	11	47	353	1	3	.	.	1	101	.
Eyemouth	65	2,114	4	44	9	48	.	.	78	2,206	10	345	.	.	1	368	.
St. Abbs	16	524	5	28	8	30	.	.	29	582	.	.	.	38	.	96	.
Scottish Stations—Totals	90	2,904	13	93	40	133	11	11	154	3,141	11	348	.	38	2	565	.
English Stations—Totals	133	5,480	5	102	254	788	60	128	452	6,498	2	406	9	383	9	1,199	.
Grand Totals for District	223	8,384	18	195	294	921	71	139	606	9,639	13	754	9	421	11	1,764	.

* Persons from inland centres temporarily engaged in fishing.

† Includes 70 steam trawlers of an aggregate tonnage of 3328 tons.

‡ Steam trawlers.

No. II.

Fishing Creek or Station on the Scottish Coasts during the Year 1914.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£				
Trawl and drift nets and lines.	The North Sea and West of Scotland.	.	.	.	Herrings, haddocks, cod, plaice, and lemon soles.	23	The catch of 66,476 crans of herrings is only half that of 1913; the decrease was large when war was declared; trawlers landed 4398 crans. Decrease in trawl fish. Twenty-five trawlers employed as mine sweepers.
Lines and creels.	Inshore.	.	.	.	Codlings and haddocks	.	Line and crab fishing below the average.
Nets and lines.	5 to 40 miles offshore.	.	.	.	"	10	Herring fishing practically closed on declaration of war; very few cured. Catch 11,177 crans against 50,790 in 1913. Line fishing about the average.
Nets, lines, and creels.	2 to 30 miles offshore.	.	.	.	Codlings, haddocks, and crabs.	.	Four crews prosecuted the herring fishing at other ports. Line and crab fishing below the average.
Lines and creels.	Inshore.	.	.	.	Codlings and crabs.	.	Line and crab fishing below the average.*
"	"	.	.	.	"	.	" " "
"	"	.	.	.	"	.	" " "
"	"	.	.	.	"	.	" " "
"	"	.	.	.	"	.	" " "
Nets, lines, and creels.	2 to 20 miles offshore.	.	.	.	Herrings, codlings, and crabs.	3	Decrease in herrings. Line and crab fishing about the average. Shipping of stones—the most important industry.
Lines and creels.	Inshore.	.	.	.	Codlings and crabs.	.	Line and crab fishing below the average.
Nets, lines, and creels.	2 to 30 miles offshore.	.	.	.	"	.	No herrings landed. Line and crab fishing about the average.
"	"	.	.	.	Herrings, codlings, and crabs.	8	Herring fishing light throughout season—only 4236 crans landed. Line and crab fishing below the average.
"	"	.	.	.	Codlings, and crabs.	.	Line and crab fishing about the average.
"	2 to 40 miles offshore.	.	.	.	Herrings, codlings, haddocks, and crabs.	5	Large decrease in herrings—fishing continued as usual after war declared.
"	"	.	.	.	"	11	Line and crab fishing about the average.
						60	
Nets, lines, and creels.	1 to 5 and 12 to 40 miles off-shore.	4,127	3,399	840	Herrings, haddocks, codlings, and crabs.	1	Seven crews prosecuted the herring fishing; curing stopped by the war. Line fishing above, crab fishing below the average.
Nets and lines.	"	104,045	27,860	3	Herrings, haddocks, and codlings.	22	Large increase in winter herring fishing. Summer fishing affected by the war—considerable decrease. Sixteen steam drifters at English autumn fishing had good success.
Nets, lines, and creels.	"	432	221	880	Codlings and crabs.	.	Large increase in small-line fishing. Fifteen crews prosecuted the home and Irish herring fishings. Line and crab fishing about the average.
		108,604	31,480	1,723		23	
		.	.	.		60	
		.	.	.		83	

FISHING BOATS AND VESSELS belonging to Creek.

STATION OR CREEK.	1st Class (including Steam Trawlers).		2nd Class.		3rd Class.		Total.		Increase on 1913.		Decrease from 1913.		Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.											
<i>Leith District.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Cove (Berwickshire) . . . .	.	.	.	.	10	25	.	.	10	25	.	.	2	37	16
Dunbar (Haddingtonshire) . .	1	26	.	.	20	58	.	.	21	84	.	.	4	41	120
North Berwick „ . . . .	.	.	.	.	6	12	.	.	6	12	.	.	.	.	15
Port Seton and Cockenzie (Haddingtonshire)	50	1,931	24	238	24	107	.	.	98	2,276	.	.	13	214	494
Prestonpans „	1	43	.	.	.	.	2	2	3	45	.	.	1	48	20
Fisherrow (Midlothian) . . .	7	262	12	141	11	38	.	.	30	441	.	.	6	174	160
Leith „	15	305	.	.	.	.	.	.	5	305	.	36	1	.	50
Newhaven „ . . . .	.	.	.	.	44	175	1	1	45	176	.	.	5	32	316
Granton „	49	2,926	.	.	.	.	.	.	49	2,926	2	876	.	.	472
Bo'ness (Linlithgowshire) . .	4	120	1	27	.	.	.	.	5	147	.	.	.	.	20
Alloa (Clackmannanshire)	2	64	9	194	1	2	3	6	15	266	.	.	3	36	30
Kincaidine (Fifeshire) . . .	5	114	4	66	.	.	.	.	9	180	2	38	.	.	25
Limekilns „ . . . .	.	.	.	.	.	.	4	6	4	6	.	.	.	.	6
Inverkeithing „ . . . .	.	.	.	.	.	.	2	5	2	5	.	.	.	.	5
Aberdour „ . . . .	.	.	.	.	4	16	1	1	5	17	1	6	.	.	10
Burntisland „ . . . .	.	.	.	.	2	4	3	3	5	7	1	.	1	.	15
Kinghorn „ . . . .	.	.	.	.	.	.	8	10	8	10	.	.	.	.	20
Kirkcaldy „ . . . .	.	.	.	.	9	20	13	10	22	30	.	.	1	4	40
Dysart and Wemyss (Fifeshire)	.	.	.	.	3	6	12	12	15	18	1	3	.	.	30
Totals	124	5,791	50	666	134	463	49	56	357	6,976	7	959	36	587	1,864

* Persons from inland centres temporarily engaged in fishing.

† Steam trawlers.

‡ Includes 44 steam trawlers of an aggregate tonnage of 2724 tons.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Crab creels.	1 to 5 miles offshore.	122	76	930	Crabs.		Crab fishing is almost the only source of income. The year's catch was a poor one.
Creels, lines, and nets.	"	6,069	2,541	1,647	Crabs, herrings, haddocks, etc.	1	The great bulk of the income here is derived from the crab and lobster fishings; other branches are declining, but this year's earnings were about £650 higher than in the preceding year.
Lines and creels.	"	989	634	212	Codlings and haddocks.		Small catches of codlings and haddocks are obtained. The earnings this year were less than usual.
Lines, nets, and dredges.	Firth of Forth and off May Island.	14,939	13,122	1,206	Codlings, haddocks, plaice, and clams.		These villages have an industrious population of fishermen who engage in the herring fishings at the principal Scottish and English centres. Herring fishing is their mainstay, but, owing to the European crisis, their earnings from this source were comparatively poor. The home fisheries were carried on with much energy in the spring and winter.
Lines.	1 to 5 miles offshore.	114	110	8			Fishing unimportant.
Lines and nets.	"	1,029	809		Codlings.		Home fishing comparatively unimportant. Income derived principally from herring fishing at the principal Scottish and English centres.
Mussel dredges.	Foreshores.			248	Mussels.	4	Small quantities of mussels landed here.
Drift, seine, and other nets, also lines.	In the Firth of Forth.	30,987	15,039	185	Herrings.	2	Herring fishing in the Firth of Forth is the principal pursuit. The winter herring fishing was highly successful, and aggregated £10,520, being much in excess of any recent year's earnings. The sprat fishing failed again, and the other fisheries were not very productive.
Otter trawls.	All through the North Sea.	294,124	190,088	133	Haddocks, codlings, plaice, etc.		Trawling centre. The greatest number of vessels trawling was 71, an increase of 6 on the preceding year's fleet. The aggregate catch was 13,823 cwts. less in quantity, but only £810 less in value than in the preceding year. Considering that 27 of the trawlers ceased fishing, and were employed by the Admiralty during the concluding five months of the year, and also the restrictions put upon fishing towards the close of the year, the results of the year's work were astonishingly successful.
Bag-nets	Upperreaches of the Firth of Forth.	1,791	816		Codlings and flounders.		Sprat fishing unsuccessful, but codling and flounder catch better than ever before.
"	"	3,526	2,220		Sprats and sparlings.		Although the sprat fishing was comparatively light, the earnings derived from sparlings and flounders made up a fairly prosperous season's work.
"	"	1,646	588				A poor sprat fishing here made the year's earnings rather light.
Lines. Gathering wheelks.	Foreshores.	97	40	29			Fisheries unimportant.
Nets.	"			12			" "
Lines.	"	318	154				" "
Lines and nets.	"	525	304	7			" "
"	"	1,063	468				" "
"	"	298	163				" "
"	"	957	569	72			" "
		358,594	227,741	4,779		7	

STATION OR CREEK.		FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
		1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1913.		Decrease from 1913.				
		45 feet keel and upwards. ^a		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
<i>Anstruther District.</i>		No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Buckhaven	(Fifeshire)	6	197	.	.	21	66	5	7	32	270	.	.	13	108	6	58	.
Methil and Leven	"	.	.	.	.	.	.	2	3	2	3	1	1	.	.	.	4	.
Largo	"	.	.	.	.	10	20	7	12	17	32	2	.	.	8	.	36	.
Elie and Earlsferry	"	.	.	.	.	2	10	2	3	4	13	.	.	.	.	1	5	.
St. Monans	"	112	4,672	15	175	8	33	.	.	135	4,880	9	428	.	.	1	396	135
Pittenweem	"	42	1,689	1	6	25	105	3	3	71	1,803	.	90	2	.	.	234	51
Anstruther and Cellardyke (Fifeshire)	.	84	3,086	12	118	8	16	4	6	108	3,226	2	511	.	.	2	476	107
Crail	"	.	.	.	.	25	67	10	12	35	79	3	5	.	.	.	56	.
Kingsbarns	"	.	.	.	.	.	.	3	5	3	5	.	.	.	.	.	6	.
St. Andrews	"	3	119	5	50	23	111	3	4	34	284	.	.	.	19	4	64	.
River Eden	"	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	.
Tayport	"	.	.	.	.	10	22	3	5	13	27	.	.	1	2	2	20	.
Newburgh	"	.	.	9	174	.	.	.	.	9	174	1	23	.	.	1	20	.
Totals		247	9,763	42	523	132	450	42	60	403	10,796	18	1,058	16	137	17	1,383	293

Montrose District.

Dundee (Forfarshire)	49	361	9	150	.	.	.	.	18	511	.	.	1	29	3	109	.
Broughty Ferry (Forfarshire)	1	41	9	115	15	45	7	21	32	222	.	.	5	20	6	85	.
Westhaven	.	.	.	.	.	.	2	1	2	1	.	.	.	.	.	6	.
Easthaven	.	.	.	.	1	2	6	10	7	12	.	.	.	.	.	5	.
Arbroath	16	671	19	247	33	127	1	2	69	1,047	.	.	1	55	3	183	.
Auchmithie	.	.	.	.	9	22	5	7	14	29	.	.	1	47	1	21	.
Usan	.	.	.	.	1	2	5	7	6	9	.	.	.	.	.	9	.

* Persons from inland centres temporarily engaged in fishing.

† Include 8 steam trawlers of an aggregate tonnage of 351 tons.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal Kinds of Fish landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Nets and lines.	Firth of Forth.	2,988	1,954	.	Herrings, haddocks, and codlings.	.	Substantial increase in catch. There was a considerable increase in the number of boats and men employed at small-line fishing during the last four months of the year. Haddocks showed an increase of about 80 per cent. Three small boats were fitted with motor power.
Lines and creels.	"	247	119	16	Codlings and haddocks.	.	Slight increase in catch. Unimportant as fishing stations.
Nets and lines.	"	3,222	2,070	.	Codlings, haddocks, and plaice.	.	Increase in landings. Catch of haddocks was more than double that of the preceding year.
"	"	175	107	6	Plaice.	"	Falling off in catch. Fishing receives little attention.
"	Firth of Forth and North Sea generally.	33,774	11,305	40	Herrings, cod, and codlings.	7	Considerable increase in catch, due to more successful winter herring fishing. Cod and codlings show a falling off. Seven large boats and 3 second-class boats were fitted with motors, and 2 steam drifters were added to the fleet during the year.
"	"	13,648	7,702	.	Herrings, codlings, and haddocks.	2	Increase in catch, chiefly in herrings and haddocks. Small-line fishing annually growing in importance. Motor engines were installed in 6 boats—3 large and 3 small—during year.
Nets, lines, and creels.	"	64,906	19,763	165	Herrings, cod, and codlings.	21	Increase in catch. The winter herring fishing was more successful. Cod and codlings show a falling off. Two steam drifters were added to the fleet, and motors were installed in 2 sailing boats.
"	Along the coast to 10 miles off.	4,619	1,485	1,960	Herrings, codlings, crabs, and lobsters.	.	Falling off in catch. Small-line fishing less successful. Lobsters and crabs show a decrease in value. Two small motor boats added to fleet.
Creels.	Along the coast.	13	4	447	Crabs and lobsters.	.	Decrease in catch. Crabs less plentiful. Lobster fishing received less attention.
Nets and lines.	St. Andrews Bay.	3,053	2,287	44	Codlings and plaice.	.	Increase in catch. Codling and plaice net fishing more successful. One boat fitted with a motor engine.
Mussel dredging.	River Eden.	.	.	977	Mussels.	.	The demand for mussels was good, and the output shows an increase.
"	Estuary of Tay.	.	.	23	"	.	About the same as last year.
Bag nets.	River Tay.	1,114	440	.	Sparlings and flounders.	.	Slight increase in catch.
		127,859	47,226	3,678		30	
(1) Trawling. (2) Bag nets.	(1) 5 to 100 miles off. (2) River Tay.	55,234	42,591	1	Codlings, haddocks, whittings, and flat fish.	1	Decrease in quantity of trawled fish, but an increase in value. Sprat fishing was a successful one for fishermen.
Nets and lines.	Tay and adjacent bays.	720	496	1,104	Flat fish and mussels.	.	Slight increase in quantity and value.
Lines and creels.	Along coast.	140	53	29	Shell fish, Codlings, and dabs.	1	Crab and lobster fisheries mainly pursued.
"	"	85	45	91	Codlings and lobsters.	.	" " " "
Nets, lines, and creels.	1 to 80 miles off.	11,992	10,662	481	Herrings, codlings, haddocks, lobsters, and crabs.	1	The quantity of herrings landed was unusually small. Small-line fishing was a success. Increases in quantity and value.
Lines and creels.	Along coast.	995	647	353	Codlings, lobsters, and crabs.	.	Slight increases in quantity and value.
"	"	224	136	158	"	.	" " " "

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.															Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	* Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1913.	Decrease from 1913.							
	15 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.														
<i>Montrose District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
Ferryden (Forfarshire) . .	17	641	14	157	3	6	21	27	55	831	.	.	6	123	5	145	.	
Montrose „ . .	6	224	.	.	.	.	10	15	16	239	4	45	.	.	.	52	.
Milton (Kincardineshire) . .	.	.	.	.	1	1	2	3	3	4	.	.	.	.	.	4	.
Johnshaven „ . .	3	103	7	81	27	101	12	20	49	305	.	.	3	40	4	68	.	
Gourdon „ . .	12	422	21	215	30	104	1	2	64	743	.	.	4	73	7	169	.	
Totals . .	64	2,463	79	965	120	410	72	115	335	3,953	4	45	21	387	29	856	.	
<i>Stonehaven District.</i>																		
Shieldhill (Kincardineshire) . .	.	.	.	.	1	2	4	5	5	7	.	.	.	.	.	5	.
Catterline „ . .	.	.	1	5	4	7	8	13	13	25	.	.	1	3	.	25	.
Stonehaven „ . .	10	330	13	152	10	26	7	9	40	517	.	.	10	185	.	130	.	
Cowie „ . .	1	20	.	.	1	4	1	1	3	25	.	.	.	.	.	5	.
Skateraw „ . .	.	.	.	.	1	3	2	3	3	6	.	.	1	2	.	5	.
Totals . .	11	350	14	157	17	42	22	31	64	580	.	.	12	190	.	170	.	
<i>Aberdeen District.</i>																		
Downies (Kincardineshire) . .	.	.	.	.	4	18	.	.	4	18	.	.	.	.	.	16	.
Portlethen „ . .	1	32	2	18	5	14	3	7	11	71	.	.	.	.	.	24	.
Cove „ . .	.	.	.	.	7	12	3	5	10	17	.	.	1	2	.	18	.
Aberdeen (Aberdeenshire) . .	†301	20,123	2	29	14	42	27	27	344	20,221	11	4,445	.	.	.	3,045	.	
Totals . .	302	20,155	4	47	30	86	33	39	369	20,327	11	4,445	1	2	.	3,103	.	

* Persons from inland centres temporarily engaged in fishing.

† Includes 233 trawlers of an aggregate tonnage of 16,854 tons.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
(1) Nets and lines. (2) Mussel gathering Mussel dredging.	(1) 1 to 80 miles off. (2) South Esk. South Esk.	19,300	8,287	191	Mussels and periwinkles. Herrings, codlings, haddocks, whittings, flat fish, and mussels.	2	Shell fish gathering chiefly. All the white fish caught is landed at Montrose. Owing mainly to the success of line fishing, the returns show an increase in both quantity and value.
Lines and creels.	Along coast.	128	69	51	Lobsters and crabs.	.	Creek of no importance.
Nets, lines, and creels.	1 to 60 miles off.	1,735	1,255	521	Codlings, haddocks, whittings, lobsters, & crabs.	.	Decrease in quantity and value of all kinds of fish.
"	"	10,363	6,989	993	"	1	Increase in quantity, but decrease in value. Crab fishing was prosecuted with results almost similar to those of 1913.
		100,916	71,180	4,843		6	
Lines and crab creels.	1 to 4 miles offshore.	12	6	184	Lobsters and crabs.	.	Decrease in catch of both white fish and shell fish.
"	1 to 10 miles offshore.	349	216	662	Codlings, lobsters, & crabs.	.	" " " "
Drift nets, lines, and crab creels.	25 to 75 miles S.E. and from 1 to 20 miles off Tod Head.	10,803	5,049	118	Herrings, cod, haddocks, whittings, and crabs.	6	Increase in the catch of herrings and white fish, but a decrease in shell fish.
Lines and creels.	1 to 5 miles offshore.	2	1	16	Lobsters and crabs.	.	Decrease in the catch of white fish, but slight increase in shell fish.
"	1 to 10 miles offshore.	379	131	66	Haddocks, whittings, and crabs.	.	Increase in the catch of both white fish and shell fish.
		11,545	5,403	1,046		6	
Lines and creels.	1 to 10 miles offshore.	515	284	5	Haddocks and whittings.	.	Decrease in both quantity and value of white fish and shell fish.
"	"	821	488	105	Haddocks, whittings, and crabs.	.	Decrease in quantity and value of white fish, but slight increase in value of shell fish.
"	"	361	183	62	Codlings, haddocks, whittings, and crabs.	.	Slight increase in quantity and value of white fish, but decrease in shell fish.
Otter trawl, drift nets, great, small, and hand lines.	Off Shetland, Orkney, North-western grounds, St. Kilda, Flannan Isles, Barra Head, West coast of Ireland, Norwegian coast, Faroe, Iceland. In the North Sea in latitudes 55° to 61° N.	1,791,868	1,172,585	18	Cod, haddocks, herrings, ling, saithe, whittings, halibut, skate, lemon soles, plaice, whitches, meg-rims, etc.	Herring curers, 18; Timers, 7; and Haddock and Cod curers, 149.	It is hardly possible to give comparisons with trawl fish and herrings, owing to the outbreak of war, but both show decreases. There is an increase in the catch and value of steam great-line fish, but a decrease in the small-line fishing in quantity and value. A feature of the year was the very high prices realised for all kinds of fish, particularly from August onwards.
		1,793,565	1,173,540	190		174	

FISHING BOATS AND VESSELS belonging to Creek.

FISHING BOATS AND VESSELS belonging to Creek.																Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	* Non-resident Fisher- men and Boys.
STATION OR CREEK.	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1913.		Decrease from 1913.					
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.											
<i>Peterhead District.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
Newburgh (Aberdeenshire)	.	.	.	.	1	5	1	2	2	7	.	.	.	.	.	4	.
Collieston ,,	.	.	.	.	2	4	5	8	7	12	.	.	.	.	.	14	.
Whinnyfold ,,	3	127	.	.	3	6	4	9	10	142	.	12	.	.	.	24	6	
Port Erroll ,,	2	68	.	.	4	8	16	22	22	98	.	.	1	41	.	80	5	
Bullers O'Buchan ,,	.	.	.	.	1	5	.	.	1	5	.	.	.	.	.	2	.
Boddam ,,	9	368	2	35	5	14	15	21	31	438	2	83	.	.	1	122	17	
Peterhead ,,	†169	5,332	.	.	27	86	39	50	235	5,468	18	519	.	.	1	941	244	
Buchanhaven ,,	3	130	2	19	10	42	14	18	29	209	7	14	.	.	.	100	8	
Rattray ,,	.	.	.	.	.	.	5	5	5	5	.	.	.	.	.	9	.
Totals .	186	6,025	4	54	53	170	99	135	342	6,384	27	628	1	41	2	1,296	280	
<i>Fraserburgh District.</i>																		
St. Combs (Aberdeenshire)	33	1,319	.	.	.	.	62	86	95	1,405	.	.	10	246	.	241	6
Charlestown ,,	.	.	.	.	.	.	4	8	4	8	.	.	.	.	.	14	.
Inverallochy ,,	25	942	.	.	.	.	59	91	84	1,033	.	.	5	120	.	289	8
Cairnbulg ,,	39	1,538	.	.	.	.	56	74	95	1,612	.	.	16	65	.	293	12
Fraserburgh ,,	†135	5,085	13	141	8	46	44	62	200	5,334	10	562	.	.	.	798	20	
Sandhaven and Pitullie (Aberdeenshire)	7	318	.	.	1	9	13	15	21	342	.	.	.	108	.	60	4	
Rosehearty ,,	33	1,296	2	35	11	64	11	18	57	1,413	.	.	17	.	249	8	.	
Pennan (Banffshire)	.	.	.	.	.	.	14	18	14	18	.	.	2	35	.	36	.
Totals .	272	10,498	15	176	20	119	263	372	570	11,165	10	562	33	591	.	1,980	58	
<i>Banff District.</i>																		
Crovie (Banffshire)	5	162	.	.	8	39	21	27	34	238	1	.	.	22	.	100	.	
Gardenstown ,,	36	1,288	6	93	7	37	17	34	66	1,452	.	.	.	121	.	240	.	
Macduff ,,	54	1,906	2	32	17	71	9	17	82	2,026	.	.	8	62	1	378	.	
Banff ,,	43	1,427	.	.	.	.	3	4	46	1,431	1	58	.	.	.	275	.
Whitehills ,,	20	768	1	9	46	214	24	48	91	1,039	5	94	.	.	2	264	.	

* Persons from inland centres temporarily engaged in fishing.

† Includes 7 steam trawlers of an aggregate tonnage of 491 tons.

‡ Includes 1 steam trawler of 57 tons.

No. II.--continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Lines.	1 to 2 miles off.	40	16	148	Codlings and saithe.	.	Unimportant as a fishing creek.
"	1 to 3 miles off.	376	188	.	Codlings, haddock, and flounders.	.	A considerable decrease in quantity and value.
"	"	272	143	.	Codlings and whittings.	.	" " " "
"	1 to 6 miles off.	595	461	.	Codlings, haddock, and dabs.	.	A great falling off in quantity and value.
"	1 mile off.	43	12	.	Codlings and saithe.	.	There are no regular fishermen at this creek.
"	1 to 6 miles off.	849	485	52	Codlings, haddock, and whittings.	.	The results show an increase both in quantity and value.
Nets and lines.	1 to 3, and from 20 to 90 miles off.	617,301	173,827	33	Herrings, cod, codlings, ling, saithe, & plaice.	90	A considerable increase in means of capture, but, owing to the war, a great decrease in quantity and value of fish landed.
Lines.	1 to 2 miles off.	1,019	515	.	Codlings, haddock, and plaice.	.	An increase in quantity and value.
"	"	137	71	20	Codlings and plaice.	.	" " " "
		620,632	175,718	253		90	
Lines and crab creels.	1 to 8 miles from shore.	5,031	2,690	859	Codlings, crabs, and saithe.	.	A decrease of 10 sail boats, 7 of which were first class, now worn out.
"	"		3,111	301	"	.	{ A decrease in sail boats, mostly first class. Otherwise very little change.
Nets and lines.	1 to 90 miles from shore.	574,611	168,390	223	Herrings, cod, haddocks, and codlings.	72	An increase of 15 steam drifters, 9 motor boats, and a decrease of 14 sail boats. Owing to the war a large decrease in quantity and value of herrings landed.
Lines and crab creels.	1 to 10 miles from shore.	226	175	243	Codlings and haddocks.	.	Several of the larger sized boats have been broken up, and replaced by small boats.
"	"	1,222	781	65	"	2	Very little change at this section.
"	"	292	111	35	"	.	This section continues steadily on the decrease.
		587,189	175,258	1,726		74	
Lines.	Moray Firth.	5,657	3,935	83	Cod and haddock.	5	{ Line fishing carried on at these creeks, the landings from which show a slight increase, chiefly in whittings.
Nets and lines.	"		8,813	59	Herrings, cod, and haddock.	9	Catch similar to last year's, but value considerably less. One steam drifter and 2 second-class motor boats added to the fleet.
Nets, lines, and crab creels.	"	24,129	.	.	.	.	No fishing carried on here. Fishermen prosecuted their calling from the large centres. The number of steam drifters was increased by 2. Boatbuilders were busy until the outbreak of war, when a number of orders for drifters were cancelled.
"	"	.	.	.	.	.	Chiefly a line and cod net fishing creek. There is a slight decrease in quantity, chiefly in herrings. The number of motor boats is about doubled.
"	"	9,433	7,695	290	Herrings, cod, haddocks, and plaice.	2	

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1913.		Decrease from 1913.				
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
<i>Banff District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Portsoy (Banffshire) . . .	18	736	2	26	10	45	11	18	41	825	.	.	2	59	.	120	.
Sandend „ . . .	8	306	.	.	18	68	8	16	34	396	.	.	2	4	.	80	.
Totals . . .	184	6,593	11	160	106	474	93	164	394	7,391	7	152	12	268	3	1,457	.
<i>Buckie District.</i>																	
Cullen (Banffshire) . . .	46	1,772	.	.	9	30	8	10	63	1,812	.	.	5	223	.	243	14
Portknockie „ . . .	74	2,663	.	.	10	39	8	11	92	2,713	.	.	9	348	.	415	30
Findochty „ . . .	97	3,467	.	.	9	28	23	43	129	3,538	3	61	.	.	.	529	27
Portessie „ . . .	60	1,979	1	15	14	47	.	.	75	2,041	.	18	.	.	.	344	27
Buckie „ . . .	197	6,786	3	56	33	159	8	17	241	7,018	7	899	.	.	.	1,147	118
Portgordon „ . . .	63	1,877	.	.	27	97	4	8	94	1,982	.	.	.	56	.	370	28
Totals . . .	537	18,544	4	71	102	400	51	89	694	19,104	10	978	14	627	.	3,048	244
<i>Findhorn District.</i>																	
Lossiemouth (Elginshire). . .	86	2,924	5	87	13	106	7	16	111	3,133	5	341	.	.	1	650	55
Hopeman „ . . .	42	1,511	.	.	17	102	2	3	61	1,616	5	.	.	106	1	368	17
Burghead „ . . .	37	1,352	.	.	15	68	5	10	57	1,430	.	42	.	.	1	222	18
Findhorn „ . . .	.	.	.	.	.	.	1	2	1	2	.	.	.	.	.	4	.
Nairn (Nairn) . . .	40	1,421	.	.	20	111	6	14	66	1,546	.	23	1	.	1	336	31
Campbeltown (Inverness)	2	85	.	.	11	66	.	.	13	151	2	71	.	.	.	50	.
Inverness „ . . .	1	50	.	.	.	.	.	.	1	50	.	.	2	6	.	5	.
Totals . . .	208	7,343	5	87	76	453	21	45	310	7,928	12	477	3	112	4	1,635	121
<i>Cromarty District.</i>																	
Avoch (Ross-shire) . . .	16	658	.	.	46	290	8	17	70	965	.	.	3	10	1	295	.
Cromarty and Invergordon (Ross-shire) . . .	.	.	.	.	7	21	23	41	30	62	.	.	1	1	4	128	.
Nigg „ . . .	.	.	.	.	.	.	5	8	5	8	.	.	.	.	1	10	.

* Persons from inland centres temporarily engaged in fishing.

of the Fishery Board for Scotland.

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No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Nets and lines.	Moray Firth.	1,888	1,216	.	Herrings, cod, and haddocks.	2	An increase in quantity and value, mostly in haddocks. Two steam drifters added to the fleet.
Lines.	"	561	352	.	Cod and haddocks.	1	Only line fishing carried on. Results somewhat similar to those of last year. Two second-class motor boats added to the fleet.
		41,668	22,011	432		19	
Nets and lines.	Moray Firth.	857	459	.	Haddocks and codlings.	1	An increase of 3 steam drifters during the year. Line fishing carried on at home.
"	"	2,825	1,663	14	"	3	An increase of 5 steam drifters. Majority of fishermen employed chiefly at herring fishing.
"	"	1,856	768	.	"	2	An increase of 3 steam drifters. Majority of fishermen employed exclusively at herring fishing.
Cod nets, herring nets, and lines.	"	.	.	.	"	.	An increase of 2 steam drifters.
"	"	50,014	21,356	16	Herrings, cod, haddocks, and all other kinds of fish.	6	An increase of 8 steam drifters. Majority of fishermen employed exclusively at herring fishing at the various centres in Scotland, England, and Ireland.
Nets and lines.	"	1,931	1,347	32	Codlings.	.	An increase of 1 steam drifter. Line fishing carried on at home.
		57,483	25,593	62		12	
Nets, lines, and creels.	Moray Firth.	27,415	13,420	41	Herrings, cod, and haddocks.	8	The large majority of the fishermen are almost wholly dependent on the herring fishing prosecuted at the chief centres, and, owing to the outbreak of war in August, operations were suddenly almost completely suspended with serious financial results.
Nets and lines.	"	3,452	1,935	.	Cod and haddocks.	.	
"	"	3,038	1,914	.	"	1	
Lines.	"	158	97	243	Haddocks and mussels.	.	
Nets and lines.	"	3,605	3,118	.	Haddocks and plaice.	.	Conditions similar to those of Lossiemouth, Hopeman, and Burghhead.
"	"	582	605	.	"	.	
Nets.	Inverness and Beaulay Firths.	20,671	7,589	.	Herrings and sprats.	3	
		58,921	28,678	284		12	
Drift nets, small lines, and cod nets.	Inverness, Beaulay, and Moray Firths.	305	184	214	Codlings and flounders.	.	Fishermen employed almost exclusively at drift net fishing at other parts of the East and West coasts. They also land the product of the local sprat and small herring fishing in Findhorn district. Summer earnings curtailed in consequence of outbreak of war.
Small hand lines and drift nets.	Cromarty and Dingwall Firths, and 1 to 8 miles off the Sutors.	4,943	3,974	214	Codlings, haddocks, whiting, and plaice.	2	Decreased catch due to the withdrawal of men to labouring work in connection with railway construction, naval activity at Cromarty, and to the mobilization of the Naval Reserve at the outbreak of war.
Small lines and hand lines.	"	.	.	.	"	.	

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).		2nd Class.		3rd Class.		Total.	Increase on 1913.	Decrease from 1913.								
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.													
<i>Cromarty District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	
Shandwick (Ross-shire)	.	.	.	.	1	3	1	3	2	6	.	.	.	.	.	15
Balintore . . .	.	.	.	.	1	2	3	6	4	8	.	.	1	2	.	40
Hilton . . .	.	.	.	.	1	3	15	37	16	40	2	7	.	.	1	76
Rockfield . . .	2	60	.	.	.	.	3	7	5	67	.	.	.	.	1	16
and Portmahomack	.	.	.	.	4	12	2	5	6	17	.	.	.	1	.	16
Inver . . .	1	46	.	.	2	12	.	.	3	58	.	.	1	6	.	18	
Tain and Tarlogie	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Totals . . .	19	764	.	.	62	343	60	124	141	1,231	2	7	6	20	8	614	
<i>Helmsdale District.</i>																	
Embo (Sutherlandshire)	6	136	.	.	14	56	5	10	25	202	5	14	.	.	.	130	
Golspie . . .	2	46	.	.	11	52	8	15	21	113	2	8	.	.	1	48	
Brora . . .	1	28	.	.	6	30	6	10	13	68	.	.	.	.	1	44
Portgower . . .	.	.	.	.	1	5	1	2	2	7	.	.	.	.	.	6
Helmsdale . . .	11	266	.	.	12	58	28	56	51	380	3	46	.	.	1	106	
Dunbeath (Caithness-shire)	2	60	2	30	5	21	8	16	17	127	.	11	2	.	1	26	
Totals . . .	22	536	2	30	49	222	56	109	129	897	10	79	2	.	4	360	
<i>Lybster District.</i>																	
Latheronwheel (Caithness-shire)	.	.	1	14	3	18	5	12	9	44	.	.	.	.	.	20
Forse . . .	.	.	.	.	.	.	4	8	4	8	.	.	.	.	.	10
Lybster . . .	2	87	5	54	.	.	10	20	17	161	2	27	.	.	.	60	
Clyth . . .	1	43	.	.	.	.	9	18	10	61	.	.	1	2	.	32
Totals . . .	3	130	6	68	3	18	28	58	40	274	2	27	1	2	.	122	
<i>Wick District.</i>																	
Whaligoe and Sarclet (Caithness-shire)	.	.	.	.	.	.	8	16	8	16	.	.	1	24	.	40
Wick . . .	73	2,718	1	12	13	53	10	20	97	2,803	11	362	.	.	.	402 30	
Boathaven and Staxigoe	1	37	.	.	1	3	7	14	9	54	.	.	1	56	.	27	

* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£				
Small and hand lines.	2 to 12 miles E. by S. of Balintore.	2,133	1,286	.	Codlings and haddocks.	1	<p>The local catch is similar to that of the preceding year. Earnings of hired men at summer herring fishing were considerably less, owing to outbreak of war. That factor affected the hired men at all the creeks.</p> <p>Decrease in catch of haddocks. Less attention than usual paid to fishing; labouring work at railway construction, etc., offering better remuneration.</p> <p>Part of the catch was landed at Portmahomack. A few fishermen wrought as labourers and navvies for a considerable part of the year.</p> <p>Mussels the only fishery product. These beds have been neglected in recent years. During the autumn a few calls were made by small boats.</p>
Lines and crab creels and drift nets.	Dornoch Firth, and 1 to 15 miles off Tarbat Ness.	1,677	854	137	Codlings, haddocks, plaice, crabs, and lobsters.	1	
Small lines and drift nets.	1 to 10 miles E. by N.E. from Inver.	48	25	.	Flounders and plaice.	.	
"	"	.	.	29	Mussels.	.	
		9,106	6,323	594		4	
Lines.	2 to 5 miles off.	1,166	745	56	Haddocks and plaice.	.	<p>The returns of fish landed show a falling off, due to many of the fishermen having been employed in the early months of the year as labourers at the Admiralty works, Cromarty, and in the Navy since the outbreak of war.</p> <p>Slightly improved results at this creek.</p> <p>Falling off in quantity and value of fish landed.</p> <p>Unimportant creek.</p> <p>A decrease in value of haddocks, which is more than made up by an increase in value of cod and shell fish.</p> <p>Considerable decrease in quantity and value of white fish; slight increase in value of shell fish.</p>
Lines and cod nets.	"	3,719	1,695	104	Cod, haddocks, and plaice.	.	
Lines.	"	1,169	562	64	Cod and haddocks.	1	
Lines and crab creels.	1 to 8 miles off.	5,130	2,325	428	"	1	
Lines.	"	1,404	614	115	"	.	
		12,588	5,941	707		2	
Drift nets, lines, and crab creels.	1 to 5 miles off.	362	95	43	Codlings, lobsters, and crabs.	.	<p>Decrease in white fish and lobsters; slight increase in crabs.</p> <p>Considerable decrease in quantity and value, as neither in winter nor summer was there any herring fishing, while white fish were scarce, and operations were greatly interrupted by unfavourable weather.</p> <p>Considerable decrease both in quantity and value.</p>
Drift nets and lines.	In shore grounds.	1,188	417	20	Codlings.	.	
Drift nets, lines, and crab creels.	1 to 6 miles off.	517	92	.	Codlings, haddocks, and herrings.	1	
Drift nets and lines.	1 to 3 miles off.	2,067	604	63	Codlings.	1	
Lines and creels.	1 to 4 miles off.	375	100	54	Cod and crabs.	.	<p>Results somewhat similar to those of the previous year.</p> <p>The winter herring fishing was the most prosperous ever experienced in this district. Although considerably interrupted in August, the summer herring fishing was prosecuted with fair success. Nine steam drifters were added to the fleet, and 10 of the first-class boats were equipped with motor engines.</p> <p>Decrease of white fish; shell fish increased. Little difference in total value. One small motor boat is used for line fishing.</p>
Drift nets, cod nets, and lines.	1 to 4 miles off, 20 to 40 miles E. to E. by N., 60 to 80 miles E., & 27 to 35 miles E. by S. to E.S.E.	551,655	163,960	.	Herrings, mackerel, cod, ling, and saithe.	60	
Drift nets, lines, and creels.	1 to 8 miles off.	453	153	93	Cod, lobsters, and crabs.	.	

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	* Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1913.	Decrease from 1913.						
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.													
<i>Wick District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Ackergill (Caithness-shire)	.	.	.	.	5	13	4	8	9	21	1	2	.	.	.	16	.
Keiss and Nybster "	2	52	.	.	7	18	6	12	15	82	.	.	.	.	.	36	.
Auckengill and Freswick (Caithness shire)	.	.	.	.	.	.	14	28	14	28	.	.	.	.	.	35	.
Stroma "	4	145	.	.	3	11	38	76	45	232	.	.	8	17	.	75	.
Duncansbay and Huna "	.	.	.	.	1	4	16	32	17	36	1	2	.	.	.	39	.
Gills and Mey "	1	42	.	.	.	.	9	18	10	60	.	.	2	6	.	21	.
Scarfskerry and Ham "	.	.	.	.	.	.	10	22	10	22	.	.	.	.	.	18	.
Brough and Dunnet "	.	.	.	.	.	.	9	20	9	20	.	.	.	.	.	20	.
Castlehill and Murkle "	.	.	.	.	.	.	4	8	4	8	.	.	.	.	.	10	.
Thurso and Scrabster "	.	.	3	38	5	15	13	27	21	80	.	.	1	5	.	58	.
Crosskirk and Brims "	.	.	.	.	1	2	2	5	3	7	.	.	.	.	.	6	.
Sandside "	.	.	.	.	1	5	3	7	4	12	.	.	.	.	.	8	.
Portskerra (Sutherlandshire)	.	.	.	.	.	.	13	26	13	26	1	2	.	.	.	40	.
Strathypoint and Armadale (Sutherlandshire)	.	.	.	.	.	.	7	14	7	14	.	.	2	5	.	16	.
Kirtomy and Farr "	1	37	.	.	.	.	6	12	7	49	.	.	1	2	.	28	.
Skerryay "	.	.	.	.	.	.	5	10	5	10	.	.	.	.	.	32	.
Scullomy "	.	.	.	.	.	.	1	3	1	3	.	.	.	.	.	5	.
Isle Roan "	1	37	.	.	.	.	5	12	6	49	.	.	.	.	.	22	.
Talmine and Portvasgo "	.	.	.	.	.	.	8	18	8	18	.	.	.	.	.	40	.
Erriboll and Rispond "	.	.	.	.	.	.	18	38	18	38	.	.	.	1	.	36	.
Totals .	83	3,068	4	50	37	124	216	446	340	3,688	14	368	16	116	.	1,030	30
<i>Orkney District.</i>																	
North Ronaldshay . . . .	.	.	.	.	.	.	10	12	10	12	.	.	3	3	3	26	.
Sanday . . . . .	.	.	.	.	.	.	18	26	18	26	.	.	6	2	6	40	.
Westray and Papa	1	36	.	.	3	14	32	50	36	100	.	.	7	33	3	130	.
Eday and Pharay . . . .	.	.	.	.	.	.	20	25	20	25	.	.	.	.	10	60	.
Stronsay	8	326	.	.	.	.	16	30	24	356	.	.	4	3	.	47	.
Shapinshay . . . . .	.	.	.	.	.	.	5	7	5	7	.	.	1	2	.	14	.
Rousay, Egilshay, and Viera .	.	.	.	.	.	.	7	9	7	9	.	.	.	.	.	17	.
Evie and Birsay . . . .	.	.	.	.	.	.	10	12	10	12	.	.	.	.	.	26	.

* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Drift nets, lines, and creels.	Sinclair Bay and along the coast.	539	204	89	Cod, haddocks, lobsters, and crabs.	.	All over results differ very little from previous year. Three small motor boats are owned at this creek.
"	"	829	447	781	Cod, lobsters, and crabs.	.	Decrease in white fish and crabs. Total value only three fourths of that for 1913. Four small motor boats are owned by the fishermen of Keiss.
Lines and creels.	2 to 6 miles off.	332	118	13	"	.	The landings of white and shell fish show a considerable decrease.
Drift nets, lines, and creels.	Around the island and Pentland Skerries.	2,820	847	286	Cod and lobsters.	1	Nine small motor boats are owned at this island. They, along with several others hired from Wick, were used for the line fishing. Landings of cod decreased, but lobsters increased.
Handlines and creels.	Pentland Skerries and along the coast.	323	125	73	"	.	Decrease of white fish; quantity and value of shell fish has been maintained.
"	1 to 6 miles off.				"	.	
"	"	796	260	282	"	.	Results generally do not differ much from those of the previous year.
Nets and lines.	Dunnet Bay.	102	89	1	Cod and saithe.	.	Although unimportant, an improvement has been effected.
Drift nets, lines, and creels.	2 to 9 miles off and along the coast.	20,821	5,380	486	Herrings, cod, ling, lobsters, and crabs.	3	A smaller portion of the winter's catch of herrings was landed at Scrabster as the weather was usually favourable for getting to Wick. Hence the decrease in quantity and value. At Thurso 3 motor boats were employed at line fishing.
Lines and creels.	Along the coast.	71	21	170	Cod, lobsters, and crabs.	.	A slight decrease in lobsters, otherwise not much change.
"	Sandside Bay and vicinity.	289	74	270	"	.	Two motor boats in use here. Decrease of white fish, but increase of lobsters and crabs. Fishermen occasionally landed their fish at Thurso.
Nets, lines, and creels.	Along the coast.	1,019	272	391	Cod, saithe, lobsters, and crabs.	.	Decrease of white fish; increase of lobsters and crabs. Total value about the same.
"	"					.	
Lines and creels.	"	157	40	98	Cod and lobsters.	.	Fishing was confined to first four months of the year. Increase in catch of lobsters, otherwise not much change.
"	"	559	128	164	"	.	An increase, accounted for by the landing of herrings in January and February.
Nets, lines, and creels.	Around the island.	200	57	52	Cod, haddocks, and lobsters.	.	Slight decrease in haddocks and lobsters.
Lines and creels.	Along the coast.	326	96	116	"	.	Herrings were caught, which is unusual. Decrease of cod and haddocks, but increase of lobsters.
"	"	475	197	667	"	.	More herrings than usual were landed. Decrease in cod and haddocks, shell fish and total value slightly increased.
		582,210	177,568	4,086			64
Creels and lines.	Inshore.			567	Lobsters.	.	Most of the fishermen have crofts. Operations confined to lobster fishing.
"	"	259	87	215	"	.	
"	"	861	189	271	"	.	" " " " " "
Drift nets, lines, and creels.	8 to 60 miles E. by S. to S. by E.	297,455	113,635	305	Herrings and lobsters.	18	This creek is fast coming to the front as an important herring fishing centre. The bulk of the catch is landed by stranger crews.
Lines and creels.	Inshore.	210	57	138	Lobsters.	1	Crofter fishermen. Fisheries unimportant.
"	"	190	68		"	.	
"	"				"	.	" " " " " "

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).		2nd Class.		3rd Class.		Total.	Increase on 1913.	Decrease from 1913.								
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.													
<i>Orkney District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Kirkwall	1	45	3	45	3	13	16	39	23	142	.	.	1	35	.	56	.
Tankerness and Deerness	2	100	.	.	.	.	6	7	8	107	.	.	.	.	2	20	.
Holm	1	34	.	.	1	3	3	7	5	44	.	.	.	.	.	17	.
Burray	14	541	.	.	1	11	5	8	20	569	.	.	1	26	1	98	.
Orphir to Scapa . . . . .	.	.	.	.	1	17	10	19	11	36	.	.	1	1	.	26	.
Stromness . . . . .	.	.	.	.	.	.	25	41	25	41	1	2	.	.	1	50	.
Hoy and Gramesay Walls	3	110	.	.	.	.	17	27	17	27	1	.	.	21	4	45	.
Flotta	1	26	.	.	1	5	18	26	20	57	.	.	.	.	.	50	.
Phara and Cara . . . . .	.	.	.	.	1	5	.	.	1	5	.	.	1	2	.	5	.
Swona . . . . .	.	.	.	.	1	5	1	2	2	7	.	.	.	.	.	7	.
South Ronaldshay	8	309	1	11	2	7	21	37	32	364	.	39	2	.	2	116	.
Totals	39	1,527	4	56	14	89	256	404	313	2,067	2	41	27	128	34	905	.
<i>Shetland District.</i>																	
Fair Isle . . . . .	.	.	.	.	.	.	6	6	6	6	.	.	.	.	.	24	.
Grutness	7	307	.	.	.	.	9	9	16	316	.	.	.	.	.	55	.
Quendale	7	287	.	.	.	.	5	5	12	292	1	38	.	.	.	55	.
Boddam . . . . .	.	.	.	.	2	10	3	3	5	13	.	.	.	.	.	40	.
Spiggie	1	36	.	.	.	.	4	4	5	40	.	.	.	.	.	45	.
Levenwick	7	279	.	.	.	.	4	4	11	283	.	.	2	45	.	60	.
Hoswick	16	707	.	.	.	.	6	9	22	716	.	.	.	.	.	94	.
Sandsair	5	199	.	.	.	.	5	5	10	204	.	5	.	.	.	65	.
Aithsvoe	4	137	.	.	.	.	7	7	11	144	.	10	.	.	.	60	.
Bressay . . . . .	.	.	.	.	.	.	14	14	14	14	.	.	.	.	.	40	.
Lerwick	29	1,146	4	56	22	154	20	20	75	1,376	.	.	8	132	1	421	10
Nesting	1	50	.	.	.	.	4	4	5	54	.	14	.	.	.	28	.
Whalsay	21	782	.	.	2	8	18	18	41	808	.	.	3	66	.	180	.
Skerries	1	22	.	.	3	18	5	5	9	45	1	2	.	.	.	25	.
Vidlin	1	25	.	.	.	.	4	4	5	29	.	.	.	.	.	30	.
West Sandwick . . . . .	.	.	.	.	.	.	6	6	6	6	.	.	.	.	.	24	.
Burrae	1	58	.	.	.	.	3	3	4	61	.	.	.	.	.	20	.
Gossaburgh . . . . .	.	.	.	.	.	.	3	3	3	3	.	.	.	.	.	12	.
Mid Yell	2	70	.	.	1	4	9	9	12	83	.	.	1	4	.	45	.
Cullivoe and Gutcher Fetlar	2	73	.	.	.	.	12	12	14	85	.	.	.	10	.	50	.
Westing and Snaravoe . . . . .	.	.	.	.	.	.	3	3	3	7	.	.	.	.	.	12	.
Uyasound . . . . .	.	.	.	.	.	.	7	7	7	7	.	.	1	1	.	26	.
Muness and Colvidale . . . . .	.	.	.	.	.	.	4	4	4	4	.	.	1	25	.	25	.
	.	.	.	.	.	.	3	3	3	3	.	.	.	.	.	9	.

* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).			Value of Shell Fish taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£				
Lines.	Inshore.	15,150	5,419	1,956		Cod and herrings.	7	Local fishermen employed at line fishing throughout the year. A fair amount of Iceland cod landed by Dutch trawlers.
Nets and creels.	"	45	9	263		Lobsters.	.	Herrings all landed by stranger fishermen.
"	10 to 40 miles S.E. and inshore.	13,926	4,606	100		Herrings.	3	Crofting districts. Fishermen prosecute herring fishing at other stations.
Nets, and lines.	"	9,196	3,112	.		"	3	Landings practically confined to herrings landed by stranger boats.
Lines and creels.	Inshore.	179	72	128		Crofter fishermen. Fourteen local crews prosecuted the summer herring fishing with fair results.	.	Fisheries unimportant.
"	"	8,073	592	1,072		Cod and lobsters.	1	Local fishermen engaged in line and lobster fishing. Herrings all landed by stranger crews.
"	"	285	74	223		Cod, lobsters, and herrings.	.	
Nets, lines, and creels.	"	586	166	39		Cod and lobsters.	.	
"	"	4,267	473	253		"	.	Crofter fishermen; lobster and hand-line fishing prosecuted with fair success. Herring fishing prosecuted during summer months from other creeks.
"	"					"	.	
"	"					"	.	
		350,682	128,559	5,530			33	
Lines.	Close inshore. 1 to 60 miles off.	10,474	3,322	47		Principally herrings and great-line fish.	2	Increase in quantity and value of herrings; slight decrease in the yield of the line fisheries as compared with 1913.
Nets and lines.	"	52,564	17,324	.		"	2	
"	"	812	130	.		Chiefly hand- and small-line fish.	6	General decrease, principally in the value of herrings, but there is also a decrease in the quantity and value of line fish.
"	"					"	.	Slight decrease both in quantity and value, mostly of hand-line fish. The fishermen land their herrings at other stations in the district.
"	1 to 90 miles	864,273	267,340	240		Herrings, mackerel, great-line fish, and haddocks.	9	Increase of nearly 30 per cent. in quantity, but decrease of over 6 per cent. in the value of herrings. Decrease in quantity of saithe, but all other varieties of great-line fish show an increase in quantity; and there is a net increase of almost 40 per cent. in value of great-line fish. The small-line fishing returns show a decrease of about 26 per cent. in quantity and 10 per cent. in value.
"	"					"	43	
"	1 to 60 miles					"	1	
"	1 to 40 miles off.	14,525	4,474	.		Herrings, haddocks, and great-line fish.	2	Great decrease in quantity and value of herrings and haddocks; landings of great-line fish about same as in 1913.
"	"					"	1	
Lines.	Inshore.					"	1	
Nets and lines.	1 to 40 miles off.	1,467	235	.		Line fish, principally saithe and haddocks.	1	Comparatively little fishing is now done in this division of the district; but general results were about equal to the previous year's.
Lines.	Inshore.					"	1	
Nets and lines.	"					"	1	
"	"	1,385	329	.		Herrings, haddocks, and saithe.	1	Decrease in quantity and value of herrings; returns of line-caught fish about same as in 1913.
"	"					"	1	

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.															Seaworthy Boats Unlaunched.	Resident Fishermen, and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).		2nd Class.		3rd Class.		Total.	Increase on 1913.	Decrease from 1913.									
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.														
Shetland District—contd.																		
Baltasound	No. 6	Ton. 250	No. .	Ton. .	No. .	Ton. .	No. 4	Ton. 4	No. 10	Ton. 254	No. .	Ton. .	No. 1	Ton. 86	No. 1	No. 36	No. .	
Haroldswick . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	7	7	7	7	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	25
Norwick . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	6	6	6	6	. . . . .	. . . . .	1	1	. . . . .	. . . . .	24
Burrafrith . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	5	5	5	5	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	16
Mossbank and Dalesvøe . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	8	8	8	8	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	32
Ollaberry . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	5	5	5	5	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	18
North Roe . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	5	5	5	5	1	1	. . . . .	. . . . .	. . . . .	. . . . .	22
Fethaland and Sandvøe . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	4	4	4	4	. . . . .	. . . . .	1	1	. . . . .	. . . . .	18
Ronasvøe . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	4	5	4	5	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	15
Stennis . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	9	9	9	9	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	36
Hillswick and Brae	1	30	. . . . .	. . . . .	1	5	10	10	12	45	1	30	. . . . .	. . . . .	. . . . .	. . . . .	45
Voe and Papa . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	18	18	18	18	. . . . .	. . . . .	3	66	. . . . .	. . . . .	66
Sandness . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	10	10	10	10	2	2	. . . . .	. . . . .	. . . . .	. . . . .	40
Foula . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	10	10	10	10	. . . . .	. . . . .	2	2	. . . . .	. . . . .	35
Vaila Sound	1	33	. . . . .	. . . . .	. . . . .	. . . . .	10	10	11	43	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	45
Sand . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	5	5	5	5	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	25
Skeld and Reawick . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	6	6	6	6	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	28
Whiteness and Burwick	4	178	. . . . .	. . . . .	. . . . .	. . . . .	10	10	14	188	. . . . .	3	1	. . . . .	. . . . .	. . . . .	60
Scalloway	8	304	2	18	5	44	8	12	23	378	. . . . .	. . . . .	2	52	. . . . .	. . . . .	97
Burra Isle	24	892	1	11	8	76	20	20	53	999	. . . . .	17	2	. . . . .	. . . . .	. . . . .	156
Oxna, Linga, etc.	1	42	. . . . .	. . . . .	. . . . .	. . . . .	7	9	8	51	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	21
Troudra	1	67	. . . . .	. . . . .	. . . . .	. . . . .	7	11	8	78	. . . . .	. . . . .	2	35	. . . . .	. . . . .	36
South Havera . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	2	2	2	2	. . . . .	. . . . .	1	34	. . . . .	. . . . .	7
Totals	151	5,974	7	85	44	319	344	358	546	6,736	6	122	32	560	2	2,348	10	
Stornoway District.																		
SOUTH LOCHS SECTION.																		
Arivruaich to Lemreway (Lewis, Ross-shire)	5	183	14	212	16	88	27	53	62	536	. . . . .	17	1	. . . . .	1	386	
Gravir																		
Colbost																		
Marvaig																		
Cromore																		
Garryvard to Keose																	
NORTH LOCHS SECTION.																		
Luerbost (Lewis, Ross-shire)	11	345	5	88	14	69	14	29	44	531	. . . . .	. . . . .	. . . . .	100	1	293	
Crossbost																		
Ranish																		
Grimshader																		
STORNOWAY SECTION.																		
Stornoway (Lewis, Ross-shire)	16	612	7	101	11	59	5	10	39	782	13	281	. . . . .	. . . . .	3	106	
Sandwick																		
Holm																		
Melbost and Stenish																		
GARRABOST SECTION.																		
Swordale and Knock (Lewis, Ross-shire)	13	501	. . . . .	. . . . .	9	43	10	27	32	571	. . . . .	75	. . . . .	. . . . .	1	411	
Bayble																		
Garrabost																		
PORTNAGURAN SECTION.																		
Sheshader (Lewis, Ross-shire)	9	348	1	10	18	83	10	22	38	463	. . . . .	118	. . . . .	. . . . .	. . . . .	282	
Portvoller																		
Portnaguran																		
Shader																		
BACK SECTION.																		
Long (Lewis, Ross-shire)	3	133	. . . . .	. . . . .	9	41	18	40	30	214	1	. . . . .	. . . . .	. . . . .	5	2	515
Coll																		
Vatisker																		
Back																		
Tolsta																		

* Persons from inland centres temporarily engaged in fishing.

No. I.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Nets and lines.	1 to 60 miles off.	49,401	11,885	.	Herrings, great-line fish, and haddocks.	11	Increase of about 100 per cent. in quantity and 65 per cent. in value of herrings; slight increase in quantity and value of haddocks; general results of great-line fishing about same as in 1913.
Lines.	Inshore.					1	
"	"					1	
"	"					1	
"	"					2	
"	"	1,436	210	.	Saithe and haddocks.	1	Herring fishing was a failure; landings of line fish were about same as in 1913; but condition of the fishing in this section is far from satisfactory.
"	"	2,011	509	22	Principally herrings, haddocks, and saithe.	1	Slight improvement in herring and small line fishings.
Nets and lines.	1 to 20 miles off.					1	
Lines.	Inshore.					1	
"	"					1	
"	"					1	
Nets and lines.	1 to 40 miles off.	5,438	1,165	41	Herrings, great-line fish, and haddocks.	1	Slight decrease in value, owing to lower prices realised for herrings; general results otherwise similar to last year's.
Lines.	1 to 10 miles off.	26,433	12,198	119	Herrings, haddocks, and great-line fish.	11	Decrease both in quantity and value of herrings; yield of small-line fishing more than doubled; decrease in quantity and value of cod, etc., principally owing to failure of cod net fishing; general results show a slight decrease in value as compared with 1913.
"	"					1	
"	"					1	
"	"					1	
Lines.	Inshore.					1	
		1,020,219	319,121	469		106	
Nets and lines.	The Minch.	1,676	609	300	Cod, ling, eels, haddocks, and saithe	.	Little change from the preceding year's figures.
"	"	2,491	563	115	Mackerel, cod, saithe, eels, and lobsters.	.	Decreases in the quantity and value of white fish and shell fish.
"	"	591,824	147,737	195	Herrings, mackerel, cod, ling, eels, saithe, and skate.	72	Herrings show an increase in catch but a decrease in value. Mackerel shows the most notable increase, while, on the other hand, the landings of saithe were about 66 per cent. less than last year's.
"	The Minch and Broadbay.	2,201	703	254	Cod, haddocks, eels, ling, and saithe.	1	Increase in white fish; decrease in lobsters.
"	"	2,145	701	.	Herrings, cod, saithe, and haddocks.	.	Decrease in all kinds.
"	Broadbay.	1,125	560	8	Haddocks.	.	Decrease in quantity and value.

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).		2nd Class.		3rd Class		Total.	Increase on 1913.	Decrease from 1913.								
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.													
<i>Stornoway District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
NESS SECTION.																	
Skegersta (Lewis, Ross-shire) .	}	.	.	.	.	10	63	21	69	31	132	1	14	.	.	4	583
Port of Ness " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Borve " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Shader—West " "	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SHAWBOST SECTION.																	
Barvas (Lewis, Ross-shire)	}	.	.	.	.	6	27	13	35	19	62	1	.	.	28	.	346
Brue " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Arnol " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Bragar " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Shawbost " "	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CARLOWAY SECTION.																	
Carloway (Lewis, Ross-shire) .	}	.	.	6	102	8	47	4	10	18	159	.	.	2	5	2	295
Tolstachuillish " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Breasclete " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Callanish " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BERNERA SECTION.																	
Lundale to Earshader (Lewis, Ross-shire) .	}	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Tobson " "		.	.	2	31	13	87	22	79	37	197	.	.	2	31	1	158
Valsey " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Breacleite and Hacklet " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Kirkibost " "	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
VALTOS SECTION.																	
Valtos and Kneep (Lewis, Ross-shire)	}	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Uigan and Arduig " "		.	.	5	82	3	13	2	4	10	99	.	4	5	.	.	137
Croulista " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Islivaig, Breanish, etc. " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Loch Hamnevy " "	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
NORTH HARRIS SECTION.																	
Cluer to Grozabay (Harris, Inverness-shire)	}	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Scadabay " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Plockropool " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Drinnishader " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Meavig " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Derriclate " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Taransay Island " "		.	.	8	89	26	108	29	49	63	246	3	.	.	66	2	247
Scarp Island " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ardhasig " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Tarbert and Urgha " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Kyles of Scalpay " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mollinganish " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Rennigedle " "	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Marig and Ardvourlie " "	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SCALPAY SECTION.																	
Scalpay and Scotasay Islands (Harris, Inverness-shire)	.	.	10	130	28	102	11	22	49	254	.	.	.	34	1	110	.
SOUTH HARRIS SECTION.																	
Obbe to Kintilivaig (Harris, Inverness-shire)	}	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Stroud " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Finsbay " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cudinish " "		.	.	8	75	42	183	22	43	72	301	.	.	3	89	2	205
Flodabay " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Manish " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Geocrab and Licisto " "		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Stockinish and Lachlee " "	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Totals .	.	57	2,122	66	920	213	1,013	208	492	544	4,547	19	509	13	358	20	4,074

* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£				
Lines.	The Minch and off the Butt of Lewis.	2,946	884	.	Cod and ling.	.	Considerable decrease in quantity and value.
Lines and lobster creels.	West side of the island.	797	204	135	Cod, ling, and saithe.	.	Decrease in quantity of white fish, but relative increase in value. Lobster fishing was not so remunerative as last year.
"	Loch roag and off Lochroag.	12,591	3,446	140	Cod, ling, tusk, saithe, had-docks, eels, and skate.	2	General decrease in white and shell fish.
"	"	1,183	264	346	Ling and lobsters.	1	General decrease in white fish and shell fish.
Lines.	"	640	186	6	Ling and had-docks.	2	General decrease.
Nets and lobster creels.	The Minch and Sea Lochs.	987	245	610	Herrings and lobsters.	1	General decrease.
"	"	4,639	1,264	635	Herrings, saithe, and lobsters.	4	General decrease.
Nets, lines, and creels.	"	4,520	710	1,002	Herrings, cod, saithe, had-docks, and lobsters.	3	Decrease occurred principally in herrings.
		629,765	158,076	3,746			86

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).		2nd Class.		3rd Class.		Total.	Increase on 1913.	Decrease from 1913.								
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.													
<i>Barra District.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Boreray (Inverness-shire).	.	.	.	.	3	12	3	6	6	18	.	.	.	.	.	17	.
Berneray	.	.	.	.	13	52	1	2	14	54	1	4	.	.	.	40	.
Hougharray to Loch Eport	„	.	.	.	7	28	5	10	12	38	1	2	.	.	.	40	.
Grimsay	„	.	.	.	21	80	7	14	28	94	5	12	.	.	.	46	.
Heisker	„	.	.	.	4	16	2	4	6	20	.	.	.	.	.	16	.
Benbecula	„	.	.	.	7	28	16	32	23	60	.	.	2	.	.	55	.
Loch Carnan	„	.	.	1	16	15	60	26	52	42	128	1	2	.	.	96	.
Loch Skipport	„	.	.	1	17	4	16	7	14	12	47	1	3	.	.	32	.
Loch Boisdale	„	1	32	3	48	17	68	27	54	48	202	.	.	2	6	138	.
Eriskay	„	.	.	20	325	14	56	11	22	45	403	4	40	.	.	154	.
Bruernish	„	.	.	13	208	9	36	4	8	26	252	.	.	12	.	78	.
Ault and Ersary	„	.	.	4	64	1	4	6	12	11	80	1	2	.	.	52	.
Brevig and Skallary	„	1	28	3	48	3	12	2	4	9	92	1	2	.	.	36	.
Castlebay	„	.	.	17	272	8	32	7	14	32	318	.	.	2	32	190	.
Totals	2	60	62	998	126	500	124	248	314	1,806	15	67	4	52	.	990	.
<i>Loch Broom District.</i>																	
CAPE WRATH TO LAXFORD.																	
Poulin (Sutherland)	.	.	.	.	.	.	3	8	3	8	.	.	.	.	.	14	.
Oldshoremore to Oldshorebeg	.	.	.	.	.	13	33	13	33	33	.	1	3	.	35	.	
Kinlochbervie	.	.	.	1	5	5	10	6	15	2	5	.	.	.	8	.	
Badcall and Achriskill	„	.	.	.	.	9	17	9	17	17	.	2	5	2	24	.	
Ardmore	„	.	.	.	.	4	11	4	11	11	.	.	.	.	8	.	
LAXFORD TO BADCALL.																	
Findlemore and Fanagmore	„	.	.	.	.	.	6	8	6	8	.	.	1	2	.	11	.
Tarbert and Scourie	„	.	.	.	.	.	9	18	9	18	.	.	1	2	1	20	.
Badcall	„	.	.	.	.	.	6	12	6	12	.	.	.	.	.	10	.
BADCALL TO DRUMBEG.																	
Unapool (Glendhu)	„	.	.	.	.	.	4	7	4	7	.	.	.	.	.	8	.
Ardvaar and Nedd	„	.	.	.	1	3	4	8	5	11	.	.	.	.	.	10	.
DRUMBEG TO CULKEIN.																	
Drumbeg	„	.	.	.	1	4	1	2	2	6	.	.	.	.	.	6	.
Culkein (Drumbeg)	„	.	.	.	1	8	7	13	8	21	.	.	.	.	2	14	.
Clashnessie	„	1	36	.	1	5	1	2	3	43	.	.	.	.	1	10	.
Achnacaron	„	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10	.
CULKEIN TO INVERPOLLY.																	
Culkein (Stoer)	„	.	.	.	.	.	2	4	2	4	.	.	.	.	1	20	.
Raffan and Balnaccladich	„	.	.	.	.	.	8	19	8	19	.	.	1	2	1	52	.
Clachtol	„	.	.	.	.	.	.	.	.	.	.	.	.	.	.	18	.
Achmelvich	„	1	45	.	.	.	3	4	4	49	.	.	.	.	.	22	.
Lochinver and Strathan	„	1	34	.	2	14	6	11	9	59	.	.	.	.	.	20	.
Badnaban and Inverkirkraig	„	.	.	.	.	.	4	9	4	9	.	.	.	.	.	12	.

* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Nets, lines, and creels.	Sound of Harris and vicinity of islands.	80	18	625	Lobsters.	.	White fishing of no importance. Shell fisheries show increase in quantity, but decrease in value over previous year.
		138	26	1,249	"	.	Decrease in white fish. Shell fisheries show decrease in value of 44 per cent. from 1913.
	The Minch inshore.	764	106	315	Mackerel and lobsters.	.	Increase in mackerel. Shell fisheries similar to previous year.
	Sea Lochs and The Minch inshore.	95	16	15	Lobsters.	.	Fisheries unimportant.
	"	3,181	1,147	885	Herrings, mackerel, and lobsters.	5	Considerable decrease, chiefly in herrings. Shell fish also show a decrease in value of £312.
	"	205	81	.	Ling and flounders.	1	The fishermen of this creek fish from Castlebay and Lochboisdale.
"	Skerryvore, Gunna Sound, Canna, Stanton Bank, and vicinity of Barra.	48,682	20,695	2,165	Herrings, cod, ling, saithe, and lobsters.	21	Herrings show a decrease of 60 per cent. in quantity and 74 per cent. in value. Considerable falling off in line fish. Decrease in value of shell fish of £259.
		53,145	22,089	5,254		27	
Nets, lines, & lobster creels.	Minch and Loch Inchard.	939	318	292	Cod, haddocks, and lobsters.	1	Considerable decrease in quantity and value of white fish and also shell fish.
	Lines and lobster creels.	156	64	475	Lobsters and saithe.	.	Results similar to those of 1913.
	Lochs Glendhu and Glencoul.	673	331	431	Haddocks, codlings, and lobsters.	.	A falling off in white fish of 571 cwts. in quantity and £247 in value. The value of shell fisheries has decreased by 54·6 per cent.
	Minch and Cairnbawn.	89	41	230	Lobsters.	.	Little net or line fishing done. Lobsters show a decrease in value of £172.
Nets, lines, and lobster creels.	Minch, Loch-inver, and Enard Bay.	6,194	1,379	431	Herrings, cod, haddocks, and lobsters.	1	Improvement in herring fishing. Total increase in quantity and value of white fish 32 per cent. and 24·3 per cent. respectively. Shell fishing results similar to last year's.

FISHING BOATS AND VESSELS belonging to Creek.																		
STATION OR CREEK.	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1913.		Decrease from 1913.		Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.	
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.														
<i>Loch Broom District—contd.</i>																		
COIGACH AND TANERA.																		
Achnahaird and Reif (Ross-shire)	2	6	4	8	6	14	2	3	.	.	2	12	.	
Altandhu	1	35	.	.	3	12	4	7	8	54	.	.	.	2	1	25	.	
Polbain and Tanera	.	.	1	12	13	56	11	21	25	89	.	.	.	.	4	46	.
Achiltibuie and Badnescally	1	5	2	4	3	9	.	.	.	.	.	28	.	
Polglass and Culnacraig	.	.	2	14	2	17	5	10	9	41	.	.	3	13	3	28	.	
<i>LOCH BROOM AND ISLEMARTIN.</i>																		
Islemartin and Ardmair	2	12	5	11	7	23	.	.	.	.	1	10	.	
Rhue and Morefield	4	8	4	8	.	.	.	.	2	10	.	
Ullapool	6	46	9	17	15	63	.	.	4	14	3	40	.	
Rheroy, Ardendrean, Letters, etc.	12	104	15	33	27	137	2	10	.	.	4	65	.	
<i>ACHMORE AND LITTLE LOCH BROOM.</i>																		
Achmore and Scorraig	2	8	11	20	13	28	.	.	.	2	2	20	.	
Charnock and Badralloch	7	13	7	13	6	10	.	.	1	10	.	
Ardessie and Badcall	.	.	1	8	2	11	3	6	25	.	.	.	.	.	2	18	.
Durnamuch and Badlurach	1	6	5	12	6	18	.	.	1	2	1	20	.	
<i>GRUINARD TO AULTBEA.</i>																		
First and Second Coast	1	3	1	3	.	.	.	.	.	5	.	
Sand and Laid	2	8	5	11	7	19	1	2	.	.	1	24	.	
Achgarve and Udrigle	1	7	3	4	4	11	3	4	.	.	1	10	.	
Opinin and Mellon Charles	.	.	1	9	1	3	6	12	8	24	3	5	.	.	.	50	.	
Ormscaig and Balnaluib	.	.	1	8	1	4	6	13	8	25	1	1	.	.	1	20	.	
Tenefin and Aultbea	3	25	2	4	5	29	.	.	1	3	1	10	.	
<i>AULTBEA TO MELVAIG.</i>																		
Poolwe and Naast	2	3	2	3	1	1	.	.	.	10	.	
Inversdale	7	8	7	8	.	.	5	.	2	24	.	
Cove	.	.	2	21	1	12	7	14	10	47	.	.	1	8	.	22	.	
<i>MELVAIG TO FLOWERDALE.</i>																		
Melvaig	2	2	2	2	2	2	.	.	.	16	.	
North Erradale	1	6	.	1	6	7	.	.	.	.	1	2	.	
Sand	5	24	2	3	7	27	2	3	.	.	1	20	.	
Strath	5	28	.	.	5	28	.	.	.	.	.	25	.	
Charlestown	1	3	1	2	2	5	.	.	.	.	.	4	.	
<i>FLOWERDALE TO SOUTH POINT OF GAIRLOCH.</i>																		
Badachro	1	22	3	42	12	67	6	16	22	147	5	14	.	.	3	20	.	
Port Henderson	5	35	.	.	5	35	.	.	.	.	.	30	.	
South Erradale	.	.	1	13	1	5	.	.	2	18	.	.	.	.	.	5	.
Red Point	2	9	.	.	2	9	.	.	.	.	.	10	.	
Totals	5	172	12	127	94	558	230	461	341	1,318	30	60	21	66	45	971	.	

* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Herring and cod nets, lines, and lobster creels.	Minch and Loch Broom	1,379	541	463	Haddocks, codlings, and lobsters.	.	The landings of herrings and cod caught by net show a slight increase, while line codlings and haddocks and whittings show small decreases. Lobster fishing was well maintained.
"	"	1,684	449	98	Herrings, cod, and haddocks.	2	The herring fishing was again a failure in this section. Other white fish fishing prosecuted for local consumption only. Lobster fishing shows an improvement to the extent of £68. The pier and slipway at Ullapool have now been completed.
"	Minch, Loch Broom, and Little Loch Broom.	157	41	58	Herrings and lobsters.	.	Very little fishing done at any of the creeks in this section.
"	Minch, Loch Broom, and Loch Ewe.	658	183	322	"	1	Herring fishing at Aultbea again a failure. Landings of other white fish similar to 1913. The value of lobsters caught has decreased by £77.
Herring nets, lines, and lobster creels.	Minch and Loch Ewe.	358	143	87	"	.	A slight improvement in white fish fishing, but lobster fishing was less successful.
"	Minch and Gairloch Bay.	282	86	88	Haddocks and lobsters.	.	More attention was given in this section to lobster fishing, the value of which shows an increase of £60. Herring and cod net fishing is carried on from Badachro.
Herring nets and cod nets, lines, and lobster creels.	"	11,378	3,004	142	Herrings, cod, saithe, and haddocks.	6	A decrease in quantity and value of all kinds of white fish landed, principally in herrings, cod, and saithe. Shell fisheries show better results, and have increased in value by 84·4 per cent.
		23,947	6,580	3,117		11	

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.															Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).		2nd Class.		3rd Class.		Total.		Increase on 1913.		Decrease from 1913.							
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.														
<i>Loch Carron and Skye District.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
Loch Torridon (Ross-shire)	.	.	.	.	7	43	8	11	15	54	.	.	5	20	1	51	.
Applecross	„	.	.	.	8	85	4	9	12	94	.	12	.	.	1	39	.	
Kishorn	„	.	.	.	5	43	3	6	8	49	1	9	.	.	.	29	.	
Loch Carron	„	.	.	3	28	21	132	6	10	30	170	.	.	2	4	2	74	
Loch Alsh	„	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Loch Hourn (Inverness-shire)	.	.	.	.	.	.	15	25	15	25	.	.	1	2	48	27	.
Sleat	„	.	.	.	.	21	88	11	27	32	115	.	.	3	11	5	60
Kyleakin	„	1	20	2	52	4	22	.	.	7	94	.	.	.	.	1	35
Broadford	„	.	.	.	.	5	32	12	22	17	54	.	.	1	4	2	40
Scalpa Sound	„	.	.	.	.	1	2	31	53	32	55	.	.	3	4	4	40
Sconcer and Braes	„	.	.	.	.	.	.	33	61	33	61	.	.	1	1	5	48
Portree	„	.	.	3	53	4	23	26	48	33	124	.	.	1	6	4	74	
Staffin	„	.	.	1	7	9	24	3	4	13	35	.	.	.	3	2	34	
Loch Snizort	„	1	18	.	.	32	153	5	9	38	180	.	14	.	.	1	96	
Waternish	„	.	.	8	98	18	62	2	3	28	163	.	.	3	12	.	70	
Dunvegan	„	.	.	.	.	22	90	8	14	30	104	5	22	.	.	.	67
Glendale and Bracadale	„	.	.	.	.	12	34	10	13	22	47	2	3	.	.	1	60
Strathaird	„	.	.	.	.	2	6	14	29	16	35	.	.	1	3	2	33
Lochs Slapin & Eyshort	„	.	.	.	.	.	.	12	25	12	25	.	.	1	2	1	57
Isle of Soay	„	.	.	.	.	.	.	4	6	4	6	1	1	.	.	.	13
Totals	.	2	38	17	238	171	839	207	375	397	1,490	9	61	22	72	36	947	
<i>Fort William District.</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Loch Nevis and North Morar (Inverness)	.	.	.	.	4	16	7	16	11	32	.	1	.	.	2	18	.
Mallaig and South Morar	„	1	21	4	55	11	42	6	7	22	125	.	8	3	.	3	48	
Arisaig and Loch Aylort	„	.	.	.	.	5	18	1	3	6	21	.	.	4	19	.	14
Sunisbury to Ockle Point (Argyll)	.	.	.	.	8	36	3	6	11	42	.	5	.	.	2	14	.
Ockle Point to Loch Sunart	„	.	.	.	.	3	7	5	7	8	14	.	.	.	.	1	24
Lochs Sunart and Aline	„	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Loch Eil and Fort William (Inverness)	.	.	.	.	.	.	27	35	27	35	.	6	1	.	4	40	.
North and South Corran (Argyll)	.	.	.	.	1	3	2	2	3	5	.	.	2	3	.	12	.
Loch Leven and Kentallen	„	1	47	.	.	.	3	3	4	50	1	2	.	.	.	12	.	
Cuil, Appin, and Loch Creran	„	.	.	.	1	4	2	3	3	7	.	.	.	.	.	9	.

* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Nets, lines, and creels.	Loch Torridon.	844	226	207	Herrings, cod, and lobsters.	1	Increase in quantity and value of herrings.
Nets and lines.	Between Skye and mainland.	133	39	7	Herrings and cod.	.	Slight increase in quantity and value.
Nets, lines, and creels.	"	3,653	1,444	229	Saithe, hake, cod.	.	Considerable increase in value of white fish. Decrease in shell fish.
"	District Lochs.	26,488	9,314	152	Herrings, mackerel, hake, and saithe.	4	A large increase in quantity and value of herrings and mackerel.
"	Loch Hourn.	39	13	72	Cod and saithe.	.	Results similar to last year's.
"	Inshore.	1,092	547	324	Cod and lobsters.	1	Decrease in quantity and value of herrings.
"	Between Skye and mainland.	2,524	1,080	674	Herrings, cod, and haddocks.	.	A slight increase in herrings and shell fish.
Nets " and lines.	"	.	.	.	"	.	" " "
"	Sound of Raasay and Scalpa.	469	121	66	Herrings and haddocks.	.	" " "
Nets and creels.	Between Skye and mainland.	2,879	689	1,263	Herrings, mackerel, and lobsters.	2	Considerable increase in herrings and mackerel; decrease in lobsters.
Nets, lines, and creels.	Inshore.	5,972	1,414	797	Herrings, and lobsters.	6	Marked decrease in quantity and value of herrings landed.
"	Loch Snizort, and Minch.	1,404	378	936	"	1	" " "
"	The Minch.	7,136	1,952	730	"	2	" " "
"	Lochs Pool-tiel and Bracadale.	.	.	.	"	3	Decrease in all kinds of fish landed.
"	Lochs Slapin and Eyshort.	270	85	202	"	.	" " "
"	Inshore.	121	28	424	Lobsters.	1	Slight decrease in lobsters.
		53,024	17,330	6,083		21	
Nets and lines.	Loch Nevis.	377	103	.	Herrings and saithe.	.	Increase in quantity. Catch consumed locally.
Nets, lines, and creels.	Minch and lochs.	140,432	61,555	379	Herrings, cod, ling, eels, and skate.	10	Increase in catch and value.
Lines and creels.	Inshore.	106	27	236	Saithe, lobsters.	.	Slight increase in value of white fish and shell fish.
Nets and lines.	"	126	70	3	Cod, flounders.	.	Slight decrease in quantity and value.
Nets, lines, and creels.	"	276	90	209	Cod, flounders, shell fish.	.	Considerable decrease in quantity and value.
Nets and lines.	Loch Linnhe.	34	9	46	Cod, saithe, whittings.	.	Creeks of no importance.
"	"	534	223	15	"	.	Results similar to those of 1913.
"	"	24	9	.	Skate, saithe, and whelks.	.	Creeks of little importance.
"	"	58	14	46	"	.	" " "

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1913.		Decrease from 1913.				
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.													
<i>Fort William District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Loch Etive and Oban (Argyll)	9	14	14	19	23	33	.	.	2	3	4	38	.
Lismore	.	.	1	21	1	2	2	3	4	26	.	20	.	.	.	6	.
Tobermory and Salen	3	17	7	10	10	27	.	.	.	2	1	26	.
Lochs Don, Spelve, and Buie	1	5	5	9	6	14	.	.	.	.	.	17	.
Carsaig to Kintra	3	5	3	5	2	3	.	.	.	8	.
Lochs Laich and Scriddan	1	3	7	8	8	11	.	.	3	12	.	26	.
Ulva, Lochs Na-Kael and Tuadh (Argyll)	1	2	10	18	11	20	2	3	.	.	.	20	.
Coll	10	14	10	14	.	.	3	2	.	18	.
Tiree	.	.	2	20	1	2	18	26	21	48	.	.	1	2	2	66	.
Iona	1	2	1	2	.	.	2	3	.	6	.
Canna (Inverness)	1	3	2	3	3	6	.	.	.	.	.	9	.
Rum, Muck, and Eigg	3	5	3	5	.	.	2	19	.	12	.
Totals	2	68	7	96	51	174	138	204	198	542	5	48	23	65	19	443	.
<i>Campbeltown District.</i>																	
Skipness and Clonaig (Argyll)	1	6	.	.	1	6	.	.	.	.	.	2	.
Carradale and Torrisdale, etc.	30	223	.	.	30	223	1	11	.	.	2	122	.
Campbeltown and Machri- hanish (Argyll)	.	.	4	68	83	663	6	7	93	738	6	70	.	.	4	323	.
Sanda	3	14	.	.	3	14	.	.	.	.	.	4	.
Southend	4	9	.	.	4	9	.	.	.	.	.	5	.
Muasdale and Ballochante	2	8	5	5	7	13	1	1	.	.	2	12	.
Gigha	17	101	12	19	29	120	.	.	1	7	.	38	.
Port Ellen	13	29	.	.	13	29	.	.	.	.	.	20	.
Portaskaig	7	14	2	2	9	16	.	.	2	6	.	14	.
Portnahaven and Port- Wemyss, etc.	27	66	30	17	57	83	.	1	6	.	12	50	.

* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken.	Principal kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Nets and lines.	Firth of Lorne and Dhuartach to Coll.	42,323	14,725	22	Herrings, cod, eels, skate.	7	Considerable increase in quantity and value.
Lines.	Loch Linnhe.	17	4	.	Saithe.	.	Creek of little importance.
Nets, lines, and creels.	Sound of Mull.	348	183	384	Herrings, cod, shell fish.	.	Decrease in quantity and value of white fish.
"	In lochs.	139	55	35	Herrings, shell fish.	.	Increase in value of shell fish.
Lines and creels.	Inshore off coast.	21	6	26	Flounders, lobsters.	.	Results similar to last year's.
Nets, lines, and creels.	In lochs.	68	18	195	Saithe, shell fish.	.	Creek of little importance.
Creels.	Around Treshnish Isles.	88	19	450	"	.	Slight decrease in value of shell fish.
Lines and creels.	Off island.	543	248	63	Saithe, lobsters.	.	Increase in white fish, but decrease in value of shell fish.
"	"	159	34	74	"	.	Slight increase in quantity and value of white fish, but decrease in value of shell fish.
"	"	199	95	88	Cod, flounders, lobsters.	.	Marked decrease in value of shell fish.
Nets, lines, and creels.	"	454	111	312	Herrings, shell fish.	.	Results similar to those of 1913.
Lines and creels.	"	70	15	181	Saithe, lobsters.	.	Increase in value of shell fish.
		186,396	77,613	2,764		17	Increase in quantity and value of white fish and shell fish.
Drift nets.	Kilbrennan Sound.	24	10	.	Herrings and mackerel.	.	Creek of very little importance as far as fishing is concerned.
Seine nets and lobster creels.	"	4,254	1,281	82	Herrings and lobsters.	.	Herring fishing prosecuted the whole year round by the majority of the fishermen.
Seine nets, flounder nets, lines, and lobster creels.	"	50,336	22,817	294	Herrings, cod, whiting, plaice, skate, and lobsters.	6	Catch and value considerably less than half those of 1913.
Lobster creels.	Around the island.	.	.	47	Lobsters.	.	Nearly all the fishermen were engaged at the herring fishing during the whole year.
Lines and lobster creels.	Along the coast.	660	165	127	Saithe and lobsters.	.	Results extremely poor, the catch of herrings showing a decrease of 67,642 cwts. from that of the previous year. The landings of both line fish and lobsters, however, show a considerable increase.
Lobster creels.	1 to 3 miles off the coast.	.	.	199	Lobsters.	.	Decrease in catch and value.
Drift nets, lines, and lobster creels.	Around the island, and from 1 to 5 miles S.W. from Cara.	411	129	363	Cod and lobsters.	3	Substantial increase in catch and value of both saithe and lobsters.
Lobster creels.	Along the coast to M'Arthur Head.	.	.	631	Lobsters.	.	Increase in catch of lobsters, but, owing to poor prices obtained, the value of the catch is similar to that of 1913.
"	Sound of Islay.	.	.	559	Lobsters.	.	Results of cod fishing disappointing. Catch and value of lobsters, however, considerably increased.
Lines and lobster creels.	1 to 5 miles off Rhynns Lighthouse.	192	41	16	Cod, saithe, and lobsters.	.	Year's catch shows very little change.
							Increase in catch, but decrease in value.
							Very poor success attended cod fishing. Large decrease in total value of all fish landed.

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.															Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1913.		Decrease from 1913.					
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.											
<i>Campbeltown District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
Bowmore (Argyll)	5	8	3	4	8	12	.	2	.	.	.	14	.	
Port Charlotte "	5	15	.	.	5	15	.	3	.	.	.	9	.	
Bruichladdich "	4	11	.	.	4	11	1	1	.	.	.	4	.	
Loch Gruinart "	4	11	.	.	4	11	1	2	.	.	.	3	.	
Jura "	2	6	2	2	4	8	.	.	.	.	.	8	.	
Colonsay "	3	6	3	3	6	9	.	.	.	.	.	12	.	
Totals	.	.	4	68	210	1,190	63	59	277	1,317	10	91	9	13	20	640	.	
<i>Inveraray District.</i>																		
Luing (Argyll)	6	27	41	41	47	68	.	2	.	.	8	40	.	
Crinan and Loch Sween "	2	12	4	4	6	16	.	1	.	.	3	4	.	
Lochkylesport "	3	2	3	2	2	1	.	.	.	3	.	
Tarbert "	60	487	5	9	65	496	.	.	3	18	4	220	.	
Ardishaig "	33	185	4	4	37	189	.	.	2	11	8	74	.	
Lochgilphead "	9	64	1	1	10	65	.	.	2	12	3	26	.	
Castleton "	6	42	1	1	7	43	.	.	.	.	3	12	.	
Lochgair "	2	4	1	1	3	5	.	.	.	.	.	5	.	
Minard "	5	51	4	4	9	55	.	.	.	.	.	23	.	
Craræ "	3	20	.	.	3	20	.	.	.	.	.	11	.	
Furnace "	3	4	3	4	.	.	1	5	1	4	.	
Kenmore "	1	8	.	.	.	
Inveraray "	2	11	4	5	6	16	.	.	1	1	3	4	.	
Cairndhu to Newton "	2	12	2	2	4	14	.	.	.	.	.	6	.	
Otter to Ardlamont "	1	4	1	1	2	5	.	.	.	.	.	3	.	
Totals	131	919	74	79	205	998	2	4	10	55	33	435	.	
<i>Rothsay District.</i>																		
Rothsay (Buteshire)	6	42	11	13	17	55	.	10	1	.	.	15	.	
Port Bannatyne "	4	7	2	2	6	9	.	.	.	.	.	8	.	
St. Ninians "	6	35	6	7	12	42	.	.	.	.	.	10	.	
Kilchattan "	2	12	3	4	5	16	.	.	.	.	.	5	.	

* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish taken	Principal kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£			
Drift nets and lines.	Lochindaal.	180	194	12	Herrings, saithe, and plaice.		Considerable decrease in both net and line fishing.
Drift nets, lines, and lobster creels.	"	192	76	22	Herrings, saithe, plaice, and lobsters.		Increase in catch and value of herrings, but little change with regard to line fish.
"	"	591	211	81	Herrings, plaice, and lobsters.		Results of net and line fishing very similar to those of the preceding year. Improvement shown in lobster fishing.
Lines.	Lochgruin-art Bay.	357	54	89	Saithe.		Considerable decline in catch and value.
Lobster creels.	Around the island.	.	.	19	Lobsters.		Returns for the year show a large decrease in the catch and value of lobsters at both creeks.
"	"	.	.	147	"		
		57,197	24,978	2,688		9	
Drift nets and lobster creels.	Vicinity of Luing and neighbouring islands.	56	16	407	Herrings and lobsters.		Increase in catch, but decrease in value of lobsters. Considerable decrease in quantity and value of unclassified shell fish.
Lobster creels.	Vicinity of Crinan.	.	.	224	Lobsters		Catch of lobsters shows little change, with slight decrease in value. Comparatively large decrease in output of oysters.
"	Lochkylesport.	35	16	116	"		Quantity and value of lobsters about 50 per cent. less than in 1912. Large proportion of catch is landed by crews from other districts.
Seine and drift nets and lines.	Lochfyne and Kilbrannan Sound.	4,733	1,574	202	Herrings, mackerel, saithe, and codlings.	2	Herrings show decrease of 64 per cent. in quantity and 60 per cent. in value. Mackerel shows large increase both in quantity and value. Little change in catch by lines.
"	"	4,736	1,685	23	Herrings, mackerel, and codlings.	2	Marked decrease in quantity and value of herrings; considerable increase in quantity and value of mackerel; line fishing results practically unchanged.
"	"	.	.	.	.	.	All fish sold at sea or landed at Ardrishaig. Five crews fished from Lochboisdale during the early summer with fair results.
}	"	210	111	9	Cod and codlings.	.	All herrings were sold at sea. Cod net and line fish show decreases of about 50 per cent.
	"	
}	Upper Lochfyne.	48	16	.	Mackerel and codlings.	.	Only a few rowing boats fish from this section, and the landings are of no importance.
		9,818	3,418	981		4	
Nets and lines.	Firth of Clyde.	2,679	1,526	18	Herrings, cod, eels, and skate.	2	Increased catch of eels, skate, and plaice was more than counterbalanced by large decrease in herrings and varying decreases in all other kinds of fish.
"	"				"		
"	Off West coast of Bute.	138	123	104	Cod.	.	Compared with 355 cwts. in 1913, no herrings were landed. Quantity of cod also shows a falling off.
"	Off South and East coasts of Bute.	736	219	27	Mackerel and cod.	.	Decrease in all kinds of fish, with the exception of mackerel, which shows a very slight increase.

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).		2nd Class.		3rd Class		Total.	Increase on 1913.	Decrease from 1913.								
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.													
<i>Rothsay District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Kyles of Bute (Argyllshire)	7	23	5	7	12	30	.	.	4	11	.	13	.
Toward to Holy Loch „	2	3	4	4	6	7	.	.	.	.	.	9	.
Blairmore, Ardentinn, and Lochgoil (Dumbartonshire)	1	1	.	.	1	1	.	.	1	2	.	1	.
Kilcreggan to Arrochar „	8	27	8	8	16	35	.	.	2	2	.	17	.
Lochranza and Caticol (Arran)	1	1	1	1	.	.	2	15	.	2	.
Pirnmill to Blackwater „	.	.	2	32	2	10	1	1	5	43	.	.	1	1	.	12	.
Blackwater to Whiting Bay „	1	2	1	2	.	.	.	.	.	2	.
Whiting Bay to Lamlash „	3	2	3	2	.	.	.	1	.	5	.
Totals	.	.	2	32	38	160	45	51	85	243	.	10	11	32	.	99	.
<i>Greenock District.</i>																	
Gareloch (Dumbartonshire)	3	7	3	3	6	10	.	.	1	1	.	6	.
Helensburgh „	1	10	4	3	5	13	.	.	.	.	.	8	.
Glasgow (Lanarkshire)	114	859	.	.	1	3	.	.	15	862	.	.	3	126	.	124	.
Port-Glasgow (Renfrewshire)	5	18	3	2	8	20	.	.	2	6	.	11	.
Greenock „	8	32	5	5	13	37	.	.	5	13	.	13	.
Gourock „	2	2	.	.	.
Wemyss Bay „	1	1	1	1	.	.	.	.	.	2	.
Largs (Ayrshire)	1	2	19	17	20	19	.	.	1	.	.	18	.
Cumbraes (Buteshire)	7	6	7	6	.	.	.	.	.	10	.
Fairlie (Ayrshire)	1	1	3	3	4	4	.	.	.	.	.	4	.
Saltcoats „	12	63	7	10	19	73	1	8	.	.	.	28	.
Ardrossan „	1	5	1	1	2	6	.	4	.	.	.	2	.
Irvine „	12	47	2	3	14	50	.	.	2	15	.	26	.
Troon „	5	10	3	4	8	14	.	.	1	2	.	8	.
Totals	14	859	.	.	50	198	58	58	122	1,115	1	12	17	165	.	260	.

* Persons from inland centres temporarily engaged in fishing.

† Includes 14 trawlers of an aggregate tonnage of 869 tons.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).	Value of Shell Fish taken.	Principal kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£		
Nets and lines.	Kyles of Bute and adjacent waters.	506	329	139	Cod, saithe, and flounders.	Increase in saithe and flounders, with other kinds practically unchanged.
"	Firth of Clyde.	294	336	107	Cod and plaice.	Little change in aggregate results.
"	Lochs Long and Gail.	2,911	728	48	Mackerel, cod, saithe, and hake.	Decrease in mackerel and cod, but an increase of about 100 per cent. in the quantity of saithe landed.
"	"					
Nets.	Kilbrannan Sound.	613	181	.	Herrings and mackerel.	Decrease in all kinds of fish.
Nets and lines.	Firth of Clyde.	15	15	.	Cod and haddocks.	Catch unimportant. Fishermen usually land their takes at other creeks.
"	South and East of Arran.	2,953	1,567	52	Herrings and mackerels.	Very marked decrease in herrings and mackerel. Other fisheries of little importance.
"	"					
		10,845	5,024	495		2
Nets and lines.	Gareloch.	72	87	37	Codlings, plaice, and mussels.	Decrease in quantity, but increase in value.
"	Gareloch and Firth of Clyde.	617	689	269	Codlings, haddocks, whittings, plaice, mussels, and winkles.	1 Considerable increase in plaice caught by nets.
Otter trawls and lines.	West Coast.	737	450	.	Ling, halibut, and skate.	28 Decrease in landings by steam liners; local trawlers employed on East Coast.
Nets, lines, and mussel dredging.	Firth of Clyde.	25	38	385	Mussels.	1 Large increase in output of mussels.
"	"	62	25	321	Saithe and mussels.	3 " " "
Nets and lines.	"	29	15	.	Herrings and codlings.	Fishing unimportant.
Lines.	"	265	249	.	Codlings, saithe, whittings, and flounders.	Increase in total landings.
Nets and lines.	"	997	547	.	Herrings, mackerel, codlings, and flounders.	Decrease in herrings, mackerel, and flounders.
"	"	436	386	2	" "	Decrease in herrings and shell fish.
"	"	5,636	2,362	3	Herrings, mackerel, and flounders.	Large decrease in herrings; marked increase in mackerel.
Nets, lines, and creels.	"	420	314	257	Herrings, codlings, eels, flounders, skate, and lobsters.	1 Decrease in herrings; no material change otherwise.
"	"					
Nets and lines.	"	956	546	3	Herrings, mackerel, codlings, and flounders.	Considerable falling off in quantity of herring landed.
Lines and creels.	"	14	13	3	Mackerel and lobsters.	Fishing unimportant.
		10,266	5,721	1,280		34

STATION OR CREEK.	FISHING BOATS AND VESSELS belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-resident Fisher- men and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1913.	Decrease from 1913.						
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.													
<i>Ballantrae District.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Ayr (Ayrshire) . . .	†1	64	.	.	8	24	1	2	10	90	.	57	3	.	2	23	.
Dunure „	32	139	1	1	33	140	.	.	5	6	2	48	.
Maidens „	31	120	1	1	32	121	.	.	4	.	3	35	.
Girvan „	30	191	3	3	33	194	.	7	2	.	4	86	.
Carleton „	2	13	4	4	6	17	.	.	1	4	1	9	.
Ballantrae „	12	44	5	7	17	51	.	.	1	5	2	32	.
Cairnryan (Wigtownshire)	3	9	.	.	3	9	.	.	.	.	1	4	.
Stranraer „	22	149	23	30	45	179	4	35	.	.	5	49	.
Kirkcolm „	2	6	7	8	9	14	1	5	.	.	1	11	.
Port Patrick „	5	7	5	7	.	.	2	2	.	6	.
Port Logan „	2	9	7	7	9	16	2	6	.	.	2	8	.
Drummore „	10	77	6	6	16	83	.	.	1	4	2	38	.
Sandhead „	4	12	11	18	15	30	5	17	.	.	3	20	.
Glenluce „	2	4	6	6	8	10	.	.	2	3	3	12	.
Port William „	2	10	14	16	16	26	3	12	.	.	2	13	.
Whithorn Isle „	1	2	7	7	8	9	.	1	.	.	.	8	.
Garlieston „	3	15	4	4	7	19	1	8	.	.	.	7	.
Creetown (Kirkcudbrightshire)	4	21	9	12	13	33	.	.	2	.	.	17	.
Kirkcudbright „	2	5	5	7	7	12	1	6	.	.	.	10	.
Carsethorn (Dumfriesshire)	2	5	.	.	2	5	.	.	.	.	.	12	.
Caerlaverock „	14	.
Annan and Powfoot „	49	207	7	11	56	218	7	22	.	.	2	80	.
Totals . . .	1	64	.	.	223	1,062	126	157	1,350	1,283	24	176	23	24	35	542	.
Grand Totals for 1914 . . .	2625	105,811	434	5,767	2346	10,919	2989	4,800	8394	127,297	.	6,626	118	.	313	32,137	1036
Grand Totals for 1913 . . .	2646	98,681	410	5,407	2484	11,840	2972	4,743	8512	120,671	.	.	352	1,477	275	32,678	1145

* Persons from inland centres temporarily engaged in fishing.

† Steam trawler.

‡ Includes 47 sailing trawlers, aggregating 214 tons, and 4 motor oyster dredgers, aggregating 45 tons.

No. II.—continued.

Methods of Fishing pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).	Value of Shell Fish taken.	Principal kinds of Fish Landed.	No. of Curing Stations.	GENERAL REMARKS.
		Cwts.	£	£		
Nets and lines.	Firth of Clyde.	9,622	7,558	63	12	Except at Ballantrae, which shows a slight improvement, all the Ayrshire creeks show decreases in the quantity landed, entirely attributable to the failure of the herring fishing in the Clyde area. Value, however, is again relatively higher. Dunure and Maidens crews land the bulk of their catches at Ayr and other ports.
"	"	2,468	1,747	65	"	
"	"	1,782	1,322	67	"	
"	"	5,437	1,894	198	3	Cod and saithe.
"	"	"	"	"	"	
"	"	1,979	757	36	"	
"	Lochryan.	20,885	11,311	2,642	16	In this section the falling off in quantity amounts to fully 50 per cent. more than accounted for by herrings, there being an increase in most other kinds, helped by the landings of 2 steam trawlers during September and October.
"	"	"	"	"	"	
"	"	"	"	"	"	
Lines and creels.	Channel.	714	484	112	"	Results at these creeks show little variation, the quantity landed being insignificant.
"	"	"	"	"	"	
Nets and lines.	Luce Bay.	2,329	1,454	184	"	The improvement recorded last year has not been maintained. The falling off, however, is not very pronounced.
"	"	"	"	"	"	
"	"	"	"	"	"	
"	"	"	"	"	"	
Lines and creels.	Wigtown Bay.	1,076	591	247	"	A substantial increase is noticeable here, chiefly in skate. Other kinds are much the same as in 1913.
"	"	"	"	"	"	
Nets and mussel crams.	Cree estuary.	"	"	"	"	A moderate improvement in the value of shell fish, and the landings of mussels fairly well maintained.
"	"	"	"	"	"	
Nets, lines, and stake nets.	Kirkcudbright Bay and Nith estuary.	601	365	498	"	
"	"	"	"	"	"	
Trawling.	Solway Firth.	1,097	960	3,984	"	Fair increases in shrimps and skate, but a considerable falling off in flounders. A fair increase in total value.
"	"	"	"	"	"	
		47,990	28,443	8,096	31	
		6,926,241	2,971,216	65,029	905	
		7,267,328	3,783,379	72,357	898	

* Not including fish landed by foreign fishing vessels, for which see p. 122.

APPENDIX A.—No. III.

RETURN for the year 1914, showing the largest number of Boats, Decked and Undecked, *irrespective* of the places to which they belong, employed fishing for herrings, as well as the number of persons engaged in that industry, in each District in Scotland at *one* time.

DISTRICTS.	Date.		Boats.	Fisher- men and Boys.	Curers.	Coopers.	Gutters and Packers.	Labourers.	Total Persons Em- ployed.
	Week ending.								
Eyemouth	Aug.	1	303	2,547	75	164	1,187	236	4,209
Leith	Feb.	14	76	283	12	16	92	20	423
Anstruther	„	21	191	1,106	43	107	174	50	1,480
Montrose	Aug.	1	48	314	6	29	200	13	562
Stonehaven	June	27	9	56	6	8	60	2	132
Aberdeen	Aug.	1	132	1,164	45	118	1,450	620	3,397
Peterhead	June	20	466	3,686	90	451	2,303	288	6,818
Fraserburgh	July	4	491	3,900	86	560	2,506	418	7,470
Banff	„	18	81	567	11	21	144	16	759
Buckie	„	11	83	637	12	25	198	12	884
Findhorn	„	4	31	271	7	12	60	10	360
Cromarty	Oct.	31	4	18	..	..	..	2	20
Helmsdale	Sept.	26	4	16	..	..	3	1	20
Lybster	June	27	9	45	1	2	18	..	66
Wick	Aug.	1	390	3,170	56	317	1,528	198	5,269
Orkney	„	1	290	2,432	31	187	1,032	128	3,810
Shetland	June	13	700	6,269	78	543	2,978	498	10,366
Stornoway	Jan.	24	271	2,421	72	360	1,296	130	4,279
Barra	May	23	173	1,140	25	81	519	48	1,813
Loch Broom	Sept.	19	56	219	7	5	93	23	347
Loch Carron and Skye.	Dec.	26	98	532	26	15	96	7	676
Fort-William	„	26	70	560	33	18	88	21	720
Campbeltown	June	20	100	470	4	4	30	3	511
Inveraray	Aug.	22	80	314	4	..	..	5	323
Rothsay	July	11	44	171	2	..	7	4	184
Greenock	Aug.	22	70	274	34	30	136	57	531
Ballantrae	Nov.	28	120	420	18	6	..	17	461

APPENDIX B.—No. I.

FISH LANDED.—STATEMENT of the Total Quantity and Value of Herrings landed by Steam, Motor, and Sailing Boats respectively in **Scotland** during the various Seasons of the Year 1914.

No.	DISTRICTS.	Winter. (1st Jan. to 31st Mar.)								Early Summer. (1st April to 30th June).	
		Steam.		Motor.		Sail.		TOTAL.		Steam.	
		Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.
	EAST COAST.		£		£		£		£		£
1	Eymouth . . .	462	152	8,015	2,724	1,358	475	9,835	3,351	4,573	999
2	Leith . . .	407	222	2,005	566	26,720	11,433	29,132	12,221	296	89
3	Anstruther . . .	..	..	20,049	6,160	84,451	25,905	104,500	32,065	210	30
4	Montrose . . .	..	..	7	3	523	165	530	168	563	142
5	Stonehaven . . .	..	..	..	..	..	..	..	..	..	..
6	Aberdeen . . .	17,361	4,025	..	..	1	1	17,362	4,026	61,211	15,506
7	Peterhead . . .	6,517	1,178	..	..	..	..	6,517	1,178	309,939	82,992
8	Fraserburgh . . .	9,985	1,871	..	..	..	..	9,985	1,871	234,839	61,003
9	Banff . . .	3,471	561	..	..	..	..	3,471	561	6,190	1,410
10	Buckie . . .	6,580	925	..	..	..	..	6,580	925	4,931	1,362
11	Findhorn . . .	6,156	1,057	..	..	859	211	7,015	1,268	1,361	369
12	Cromarty . . .	..	..	..	..	28	10	28	10	..	..
13	Helmsdale . . .	..	..	..	..	..	..	..	..	..	..
14	Lybster . . .	..	..	..	..	..	..	..	..	..	..
15	Wick . . .	146,775	30,357	13,042	3,006	2,060	544	161,877	33,907	137,240	44,042
	East Coast Totals carried down . . .	197,714	40,348	43,118	12,459	116,000	38,744	356,832	91,551	761,353	207,944
	ORKNEY AND SHETLAND.										
16	Orkney . . .	1,989	193	..	..	..	..	1,989	193	131,225	45,564
17	Shetland . . .	20,887	2,750	..	..	..	..	20,887	2,750	693,213	198,693
	Orkney and Shetland Totals cd. down . . .	22,876	2,943	..	..	..	..	22,876	2,943	829,438	244,257
	WEST COAST.										
18	Stornoway . . .	381,738	67,148	1,344	245	5,696	1,202	388,778	68,595	21,136	6,623
19	Barra . . .	3,315	654	..	..	609	109	4,424	763	16,786	7,680
20	Loch Broom . . .	2,905	508	140	32	2,153	497	5,198	1,037	525	90
21	Loch Carron & Skye . . .	5,405	921	105	46	824	154	6,334	1,121	35	11
22	Fort-William . . .	50,805	14,893	..	..	..	..	50,805	14,893	27,836	11,281
23	Campbeltown . . .	..	..	15,072	5,192	302	117	15,374	5,309	..	..
24	Inveraray . . .	..	..	..	..	..	..	..	..	..	..
25	Rothsay . . .	..	..	280	67	70	25	350	92	..	..
26	Greenock . . .	315	27	940	334	333	84	1,588	445	7	3
27	Ballantrae . . .	213	22	8,332	4,419	2,854	1,870	11,399	6,311	..	..
	West Coast Totals carried down . . .	445,196	84,173	26,213	10,335	12,841	4,058	484,250	98,566	66,325	25,688
	TOTALS brought down.										
	East Coast . . .	197,714	40,348	43,118	12,459	116,000	38,744	356,832	91,551	761,353	207,944
	Orkney & Shetland . . .	22,876	2,943	..	..	..	..	22,876	2,943	829,438	244,257
	West Coast . . .	445,196	84,173	26,213	10,335	12,841	4,058	484,250	98,566	66,325	25,688
	Foreign Fishing Vessels . . .	..	..	..	..	..	..	..	..	7	1
	Grand Tls. for 1914 . . .	665,786	127,464	69,351	22,794	128,841	42,802	863,958	193,060	1,657,123	477,890
	Grand Tls. for 1913 . . .	509,548	130,897	50,005	18,284	66,644	25,559	626,197	174,740	999,658	442,121
	Increase in 1914 . . .	156,238	..	19,326	4,510	62,197	17,243	237,761	18,320	657,465	35,769
	Decrease in 1914 . . .	..	3,433	..	..	..	..	..	..	..	..

APPENDIX B.—

FISH LANDED.—STATEMENT of the Total Quantity and Value
in **Scotland** during the

No.	DISTRICTS.	Early Summer—continued. (1st April to 30th June).						Great Summer and Autumn. (1st July to 31st Dec.)			
		Motor.		Sail.		TOTAL.		Steam.		Motor.	
		Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.
	EAST COAST.		£		£		£		£		£
1	Eyemouth . . .	28,175	5,921	7,797	1,374	40,545	8,294	12,120	3,590	30,415	7,575
2	Leith . . .	..	..	427	205	723	291	329	201	45	24
3	Anstruther . . .	432	100	156	71	798	201	1,782	514	257	51
4	Montrose . . .	378	102	1,357	269	2,298	513	4,212	1,176	2,209	606
5	Stonehaven . . .	..	..	2,114	383	2,114	383	14	6	..	..
6	Aberdeen . . .	2,237	533	8,811	2,172	72,259	18,211	62,076	27,846	2,090	860
7	Peterhead . . .	8,677	2,195	146,843	34,329	465,459	119,516	84,669	33,347	2,076	767
8	Fraserburgh . . .	17,105	4,284	124,068	27,442	376,012	92,729	109,865	43,243	8,187	3,216
9	Banff . . .	38	13	2,911	678	9,139	2,191	4,729	1,177	32	11
10	Buckie . . .	..	..	197	51	5,128	1,413	11,616	2,957	..	..
11	Findhorn . . .	4	2	168	47	1,533	418	3,139	850	..	..
12	Cromarty . . .	..	..	..	..	..	..	..	..	..	..
13	Helmisdale . . .	..	..	..	..	..	..	..	..	165	48
14	Lybster . . .	..	..	23	6	28	6	..	..	..	..
15	Wick . . .	16,915	5,111	42,116	11,416	196,271	60,569	144,624	54,933	18,124	6,024
	East Coast Totals carried down . .	73,961	18,261	336,993	78,443	1,172,307	304,648	439,175	169,860	63,600	19,122
	ORKNEY AND SHETLAND.										
16	Orkney . . .	2,894	1,015	20,930	5,901	155,049	52,483	145,936	61,155	2,698	1,012
17	Shetland . . .	1,084	271	66,396	20,317	765,693	219,281	147,237	66,699	..	..
	Orkney and Shetland Totals cd. down . .	3,978	1,286	87,326	26,221	920,742	271,764	293,173	127,854	2,698	1,012
	WEST COAST.										
18	Stornoway . . .	1,081	506	22,900	8,149	45,177	15,278	115,821	50,212	5,985	2,328
19	Barra . . .	4,673	2,498	19,886	8,987	41,745	19,165	440	230	45	38
20	Loch Broom . . .	..	..	219	53	744	143	416	157	689	149
21	Loch Carron & Skye . . .	405	111	765	185	1,205	307	8,400	3,713	11,805	3,354
22	Fort-William . . .	2,001	1,060	1,725	698	31,562	12,979	61,778	30,014	3,409	1,619
23	Campbeltown . . .	20,638	8,078	56	15	20,694	8,093	154	75	12,545	7,794
24	Inveraray . . .	455	221	7	3	462	224	..	..	2,541	1,577
25	Rothsay . . .	408	122	157	105	565	227	..	..	2,611	1,506
26	Greenock . . .	619	205	70	35	696	243	..	..	2,538	1,561
27	Ballantrae . . .	1,854	1,018	71	49	1,925	1,067	440	204	4,166	3,238
	West Coast Totals carried down . .	32,134	13,759	45,916	18,279	144,375	57,726	187,449	84,605	46,334	23,164
	TOTALS brought down.										
	East Coast . . .	73,961	18,261	336,993	78,443	1,172,307	304,648	439,175	169,860	63,600	19,122
	Orkney & Shetland . . .	3,978	1,286	87,323	26,221	920,742	271,764	293,173	127,854	2,698	1,012
	West Coast . . .	32,134	13,759	45,916	18,279	144,375	57,726	187,449	84,605	46,334	23,164
	Foreign Fishing Vessels . . .	..	..	..	..	7	1	23	9	..	..
	Grand Tls. for 1914 . . .	110,073	33,306	470,235	122,943	2,237,431	634,139	919,820	382,328	112,632	43,298
	Grand Tls. for 1913 . . .	98,202	32,542	347,609	135,641	1,445,469	610,304	1,353,935	762,877	218,403	110,539
	Increase in 1914 . . .	11,871	764	122,626	..	791,962	23,835	49,115	380,549	103,771	67,241
	Decrease in 1914 . . .	..	..	..	12,698	..	..	..	..	..	..

No. I.—continued.

of Herrings landed by Steam, Motor, and Sailing Boats respectively
various Seasons of the Year 1914.

Great Summer and Autumn—contd. (1st July to 31st Dec.)				TOTALS.								GRAND TOTAL.		No.
Sail.		TOTAL.		Steam.		Motor.		Sail.						
Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.	Cwts. Landed.	Value.	
£	£	£	£	£	£	£	£	£	£	£	£	£	£	
4,073	1,004	46,608	12,169	17,155	4,741	66,605	16,220	13,228	2,853	96,988	23,814		1	
1,496	301	1,870	526	1,032	512	2,050	590	28,643	11,939	31,725	13,041		2	
1,925	513	3,964	1,078	1,992	544	20,738	6,311	86,532	26,489	109,262	33,344		3	
5,809	1,615	12,230	3,397	4,775	1,318	2,594	711	7,689	2,049	15,058	4,078		4	
2,293	681	2,307	687	14	6			4,407	1,064	4,421	1,070		5	
5,736	2,317	69,902	31,023	140,648	47,377	4,327	1,393	14,548	4,490	159,523	53,260		6	
39,390	12,122	126,135	46,176	401,125	117,517	10,753	2,902	186,233	46,451	598,111	166,870		7	
54,036	19,561	172,088	66,020	354,689	106,117	25,292	7,500	178,104	47,003	558,085	160,620		8	
2,312	600	7,073	1,788	14,390	3,148	70	24	5,223	1,278	19,683	4,450		9	
1,669	432	13,285	3,389	23,127	5,244			1,866	483	24,993	5,727		10	
7,101	2,503	10,240	3,353	10,656	2,276	4	2	8,128	2,761	18,788	5,039		11	
66	25	66	25					94	35	94	35		12	
4	1	169	49			165	48	4	1	169	49		13	
22	6	22	6					50	12	50	12		14	
39,454	14,159	202,202	75,136	428,639	129,352	48,081	14,141	83,630	26,119	560,350	169,612		15	
165,386	55,840	668,161	244,822	1,398,242	418,152	180,679	49,842	618,379	173,027	2,197,300	641,021			
24,734	9,147	173,368	71,314	279,150	106,912	5,592	2,027	45,664	15,051	330,406	123,990		16	
23,408	9,715	170,645	76,414	866,337	268,142	1,084	271	89,804	30,032	957,225	298,445		17	
48,142	18,862	344,013	147,728	1,145,487	375,054	6,676	2,298	135,468	45,083	1,287,631	422,435			
18,189	6,255	139,995	58,795	518,695	123,983	8,410	3,079	46,845	15,606	573,950	142,668		18	
1,320	758	1,805	1,026	21,041	8,564	4,718	2,536	21,815	9,854	47,574	20,954		19	
6,029	1,240	7,134	1,546	3,846	755	829	181	8,401	1,790	13,076	2,726		20	
7,984	2,019	28,189	9,086	13,840	4,645	12,315	3,511	9,573	2,358	35,728	10,514		21	
492	197	65,679	31,830	140,419	56,188	5,410	2,619	2,217	895	148,046	59,702		22	
1,062	454	13,761	8,323	154	75	48,255	21,064	1,420	586	49,829	21,725		23	
213	136	2,754	1,713			2,996	1,798	220	130	3,216	1,937		24	
175	124	2,786	1,630			3,299	1,695	402	254	3,701	1,949		25	
214	158	2,752	1,719	322	30	4,097	2,100	617	277	5,036	2,407		26	
218	178	4,824	3,620	653	226	14,352	8,675	3,143	2,097	18,148	10,998		27	
35,896	11,519	269,679	119,288	698,970	194,466	104,681	47,258	94,653	33,856	898,304	275,580			
165,386	55,840	668,161	244,822	1,398,242	418,152	180,679	49,842	618,379	173,027	2,197,300	641,021			
48,142	18,862	344,013	147,728	1,145,487	375,054	6,676	2,298	135,468	45,083	1,287,631	422,435			
35,896	11,519	269,679	119,288	698,970	194,466	104,681	47,258	94,653	33,856	898,304	275,580			
..	..	23	9	30	10	..	..	..	..	30	10		
249,424	86,221	1,281,576	511,847	3,242,729	987,682	292,036	99,398	848,500	251,966	4,383,265	1,339,046			
805,319	429,294	2,377,657	1,302,710	2,863,141	1,335,895	366,610	161,365	1,219,572	590,494	4,449,323	2,087,754			
555,895	343,073	1,035,781	790,863	379,588	348,213	74,574	61,967	371,072	338,528	66,058	748,708			

APPENDIX B.—No. II.—RETURN respecting Vessels arriving and Fish landed in the District of Eyemouth during the Year 1914, and showing the catch and value during the previous Year.

Method of Fishing.	Trawls.			Lines.						Nets.						1914. Total Quantity and Value.	1913. Total Quantity and Value.
	Steam.	Motor.	Sail.	Steam.	Motor.	Sail.	Total.	Steam.	Motor.	Sail.	Total.	Quantity.	Value.	Quantity.	Value.		
No. of Vessels arriving Aggregate No. of Days absent from Port	4,438	450	..	..	4,888	786	2,597	583	3,966	..	..	..	..
Description of Fish.	Quantity.	Value.	Quantity.	Quantity.	Value.	Quantity.	Quantity.	Quantity.	Quantity.	Quantity.	Quantity.	Quantity.	Value.	Quantity.	Value.		
	Cwt.	£	Cwt.	Cwt.	£	Cwt.	Cwt.	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£		
PELAGIC FISH—	17,155	4,741	63,605	16,220	2,853	96,988	23,814	42,950		
Herrings		
Sprats		
Spardings	973	158	2,950	492	85	4,448	735	978		
Mackerel		
Total of Pelagic Fish	18,128	4,899	69,555	16,712	2,938	101,436	24,549	43,928		
DEMERSAL FISH—		
Round.		
Cod	76	81	234	320	..	..	..	..	..	..	..	..
Codling	278	212	2,368	1,728	..	..	..	..	..	2,356	2,048	1,512		
Ling	65	56	117	148	..	..	..	..	..	182	148	229		
Torsk (Tusk)		
Saithe (Coal Fish)		
Haddock, ex. L.a.		
Large	459	558	2,453	3,096	..	..	..	..	..	2,912	3,096	1,509		
Medium	2,166		
Small		

[illegible]

SHIEL-FISH.

	Oysters.	Lobsters.	Crabs.	Mussels.	Clams.	Unclassified.
	No.	No.	No	Cwts.	Cwts.	Cwts.
	..	3,932	274,400	..	..	42
	..	180	1,536	..	..	7
TOTAL VALUE OF ALL FISH						
Fish used for Manure						
Bait						
" (included above)						

[illegible]

[illegible]

SHELL-FISH.

	Oysters.	Lobsters.	Crabs.	Mussels.	Clams.	Unclassified.
	No.	No.	No.	Cwts.	Cwts.	Cwts.
	£	£	£	£	£	£
TOTAL VALUE OF ALL FISH	..	3,595	83,485	..	..	12
Fish used for Manure.
Bait.
" (included above)

APPENDIX B.—No. II.—RETURN respecting Vessels arriving and Fish landed in the District of **Aberdeen** during the Year 1914, and showing the catch and value during the previous Year.

Method of Fishing.	Trawls.			Lines.						Nets.						1914. Total Quantity and Value.		1913. Total Quantity and Value.	
	Steam.	Value.	Quantity.	Steam.	Motor.	Sail.	Total.	Steam.	Motor.	Sail.	Total.	Quantity.	Value.	Quantity.	Value.				
No. of Vessels arriving	10,159	1,468	25	2,840	4,333	2,517	70	317	2,904										
Aggregate No. of Days absent from Port	49,411	12,551	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Description of Fish.	Quantity.	Value.	Quantity.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.				
	Cwt.	£	Cwt.	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£				
PELAGIC FISH—																			
Herrings	3,208	1,850	..	..	..	..	..	137,440	45,527	4327	1393	14,548	51,410	159,523	53,260	269,167	136,149		
Sprats	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Starlings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mackerel	3,104	1,218	..	62	30	62	30	3,971	234	54	5	182	252	7,373	1,500	7,653	2,135		
Total of Pelagic Fish	6,312	3,068	..	62	30	62	30	141,411	45,761	4381	1398	14,730	51,662	166,896	54,760	276,820	138,284		
DEMERSAL FISH—																			
Round.																			
Cod	179,368	132,119	54,284	35,757	105	218	203	54,607	36,037	143	81	..	81	234,118	168,237	301,607	182,254		
Codling	221,999	124,770	7,379	4,595	29	544	434	7,914	5,029	..	..	..	..	229,913	129,799	268,386	136,917		
Ling	67,937	22,120	109,237	42,550	29	37	23	109,303	42,500	..	..	..	..	177,240	64,710	171,184	61,752		
Torsk (Tusk)	2,495	819	13,200	6,490	714	94	24	13,200	6,490	..	..	..	..	15,695	7,309	14,123	5,697		
Saithe (Coal Fish)	190,070	43,248	3,424	714	399	..	..	..	..	..	..	..	..	193,666	44,011	239,826	40,628		
Haddock, ex. La.	22,390	12,958	617	399	..	..	..	..	..	..	..	..	..	23,007	13,357	26,142	13,734		
" Large	102,553	133,377	6	..	..	..	..	..	..	..	..	..	..	102,584	133,414	142,385	164,303		
" Medium	45,962	54,382	..	..	..	..	..	..	..	..	..	..	..	46,457	54,850	78,507	80,511		
" Small	149,798	81,407	..	..	..	1,985	1,074	1,985	1,074	..	..	..	..	142,783	82,481	178,331	107,764		

Whitings	152,010	98,936	1	..	..	2	1,166	717	1,167	717	..	..	..	..	..	..	148,011	73,508
Conger Eels	514	223	1,000	430	..	1	..	..	1,002	431	..	..	..	..	..	..	1,347	570
Gurnards	4,763	649	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3,619	416
Catfish.	16,136	3,342	439	95	..	..	..	..	439	95	..	..	..	..	..	..	17,683	3,603
Monks (Anglers)	21,183	5,421	2	..	..	..	..	..	2	..	..	..	..	..	..	..	21,971	5,397
Hake	22,528	16,441	457	519	..	..	..	..	457	519	..	..	..	..	..	..	21,971	5,397
Total of Round Fish	1,190,706	731,212	190,037	91,556	230	120	4,548	2,973	194,815	94,649	143	81	..	..	..	143	1,630,462	891,323
FLAT.																		
Turbot	1,983	7,251	5	..	..	..	..	..	5	11	..	..	..	..	..	..	1,707	7,000
Halibut	9,526	23,748	31,430	76,846	15	33	3	5	31,448	76,854	..	..	..	..	..	..	41,350	99,963
Lemon Soles.	24,256	63,224	..	..	..	..	..	..	..	..	..	..	..	..	..	..	26,229	61,400
Flounders	26	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	5
Plaice, Large	1,020	2,002	..	..	..	..	..	..	..	..	..	..	..	..	..	..	894	1,566
" Medium	12,191	32,954	..	..	..	..	184	360	184	360	..	..	..	..	..	..	12,719	30,088
" Small	5,069	9,496	..	..	..	..	58	81	58	81	..	..	..	..	..	..	4,009	5,724
Brill	398	656	..	..	..	..	..	..	..	..	..	..	..	..	..	..	174	368
Dabs	3,115	1,628	..	..	..	..	274	212	274	212	..	..	..	..	..	..	2,215	1,056
Whites	17,375	19,881	..	..	..	..	..	..	..	..	..	..	..	..	..	..	24,782	23,301
Megrim	14,893	20,391	21	..	..	..	..	..	..	..	..	..	..	..	..	..	15,640	19,625
Total of Flat Fish	89,822	181,247	31,456	76,879	15	33	519	658	31,990	77,570	..	..	..	..	..	..	129,727	250,085
Skates and Rays	50,418	14,299	66,244	19,204	228	87	108	25	66,580	19,316	..	..	..	..	..	..	106,349	26,654
Squids	160	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28	3
Unclassified kinds	1,996	359	39	..	15	..	..	..	..	39	15	..	..	..	..	..	8,566	897
GRAND TOTALS	1,339,414	930,217	287,776	187,654	473,240	5,237	3,086	293,486	191,580	141,554	45,842	438	1398	14,730	4,503	160,665	2,151,952	1,307,246

SHELL-FISH.

[illegible]

[illegible]

SHELL-FISH.

	Oysters.	Lobsters.	Crabs.	Mussels.	Clams.	Unclassified.
	No.	No.	No.	Cwts.	Cwts.	Cwts.
TOTAL VALUE OF ALL FISH	£ 218	£ 14	£ 12,950	£ 3,720	£ 148	£ ..
Fish used for Manure	..	..	..	..	..	..
" " Bait	..	..	..	..	..	..
" " (included above)	..	..	..	..	..	..

[illegible]

[illegible]

SHELL-FISH.

TOTAL VALUE OF ALL FISH	
Fish used for Manure .	Bait .
"	(included above)

APPENDIX B.—No II.—RETURN respecting Vessels arriving and Fish landed in the District of **Buckie** during the Year 1914, and showing the catch and value during the previous Year

Method of Fishing.	Trawls.			Lines.						Nets.						1914 Total Quantity and Value.		1913 Total Quantity and Value.	
	Steam.	Motor.	Sail.	Steam.	Motor.	Sail.	Total.	Steam.	Motor.	Sail.	Total.	Quantity.	Value.	Quantity.	Value.				
No. of Vessels arriving Aggregate No. of Days absent from Port	8	21	4,235	4,264	935	1,248	2,298	935	115	1,248	2,298								
Description of Fish.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.				
	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£				
PELAGIC FISH—																			
Herrings	..	..	..	..	..	..	..	23,127	..	1,866	483	24,993	5,727	24,993	5,727	20,780	8,980	..	..
Sprats	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sparlings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mackerel	..	..	..	..	..	..	..	250	..	..	3	278	41	278	41	1,842	29	..	..
Total of Pelagic Fish.	..	..	..	..	..	..	..	23,377	5,282	1,894	486	25,271	5,708	25,271	5,708	22,622	9,009	..	..
DEMERIAL FISH—																			
Round.																			
Cod	49	21	..	..	..	..	49	1,641	848	782	389	18,906	9,498	18,906	9,498	18,955	9,519	22,857	9,852
Codling	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,437	2,235	3,192	1,465
Ling	64	38	..	..	..	..	64	..	..	..	..	..	..	..	..	73	44	7	4
Torsk (Tusk)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Saithe (Coal Fish)	11	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Haddock, ex. La.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Large.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Medium.	66	69	..	..	..	..	66	7,829	7,459	..	..	..	..	..	..	7,952	7,579	9,171	7,279
Small	20	10	..	..	..	..	20	360	186	..	..	..	..	..	..	380	196	..	..

[illegible]

[illegible]

SHELL-FISH.

	Oysters,	Lobsters,	Crabs,	Mussels,	Clams,	Unclassified,
	No.,	No.,	No.,	Cwts.,	Cwts.,	Cwts.,
TOTAL VALUE OF ALL FISH	..	£ 350	£ 2,300	£ 4,800	£ 243	..
Fish used for Manure
Bait
" (included above)

Whittings	109	251	107	204	11,329	5,129	12,776	5,150
Conger Eels	46	94	33	96				
Gurnards
Catfish
Monks (Anglers)
Hake
Total of Round Fish	109	251	107	204	11,329	5,129	12,776	5,150
FLAT.								
Turbot
Halibut
Lemon Soles
Flounders
Plaice, Large
" Medium
" Small
Brill
Dabs
Whitchies
Megrim
Total of Flat Fish	19	12	8	4
Skates and Rays	61	229	132	449	125	430	125	430
Squids
Unclassified kinds
GRAND TOTALS	6,539	14,706	5,941	12,588	465	1,293	465	1,293
SHELL-FISH.								
Oysters.
Lobsters.
Crabs.
Mussels.
Clams.
Unclassified.
TOTAL VALUE OF ALL FISH	570	767	767	6,708	884	155	884	155
Fish used for Manure
" Bait
" (included above)

[illegible]

SHIELD-FISH.

	Oysters.	Lobsters.	Crabs.	Mussels.	Clams.	Unclassified.
	No.	£	No.	Cwts.	Cwts.	Cwts. £
TOTAL VALUE OF ALL FISH	7,233	41	..	63
Fish used for Manure	120
Bait	1,734
" (included above)
	667

[illegible]

APPENDIX B.—No. II.—Return respecting Vessels arriving and Fish landed in the District of Orkney during the Year 1914, and showing the catch and value during the previous Year.

Method of Fishing.		Trawls.		Lines.				Nets.				1914. Total Quantity and Value.		1913. Total Quantity and Value.	
Steam.		Steam.		Steam.	Motor.	Sail.	Total.	Steam.	Motor.	Sail.	Total.				
No. of Vessels arriving	13			1	223	2,500	2,724	5,519	115	1,893	7,527				
Aggregate No. of Days absent from Port	31			1	223	2,500	2,724	6,320	167	2,504	8,991				
Description of Fish.	Quantity.	Value.		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.		
	Cwt.	£		Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£		£
PELAGIC FISH—															
Herrings	..	..	..	..	..	..	..	279,150	106,912	5,592	2,027	45,664	15,051	330,406	123,990
Sprats	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Spardings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mackerel	..	..	..	..	..	..	..	45	5	40	10	135	30	240	45
Total of Pelagic Fish	..	..	..	..	..	..	..	279,195	106,917	5,632	2,037	45,819	15,081	330,646	124,035
DEMERSAL FISH—															
ROUND.															
Cod	586	198	10	7	145	132	1,198	600	..	..	..	..	..	1,939	937
Codling	30	20	..	..	291	266	2,397	1,200	..	..	..	..	..	2,718	1,486
Ling	..	..	4	3	10	6	57	33	..	..	..	..	..	71	42
Torsk (Tusk)	..	..	..	..	..	..	11	4	..	..	..	..	..	11	4
Saithe (Coal Fish)	..	..	..	..	..	..	2,118	574	..	..	..	..	..	11,298	908
Haddocks, ex. La.	137	41	..	..	..	..	..	..	..	9,180	334	9,180	334	137	41
" Large	10	10	..	..	8	10	22	22	..	..	..	..	..	40	42
" Medium	30	26	..	..	43	57	98	102	..	..	..	..	..	62	54
" Small	70	53	..	..	17	24	40	41	..	..	..	..	..	171	185
Total of Demersal Fish	..	..	..	..	..	..	..	..	..	..	..	..	..	127	118
														318,616	185,755

[illegible]

SHELL-FISH.

TOTAL VALUE OF ALL FISH
Fish used for Manure
" " Bait
(included above)

[illegible]

SHIELD-FISH.

TOTAL VALUE OF ALL FISH	
Fish used for Manure	Bait (included above)
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50
51	52
53	54
55	56
57	58
59	60
61	62
63	64
65	66
67	68
69	70
71	72
73	74
75	76
77	78
79	80
81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100

[illegible]

[illegible]

[illegible]

SHELL-FISH.

TOTAL VALUE OF ALL FISH
Fish used for Manure
Bait.
(included above)

[illegible]

4*

[illegible]

	SHELL-FISH.										OYSTERS.		LOBSTERS.		CRABS.		MUSSELS.		CLAMS.		UNCLASSIFIED.		
	No.	£	No.	£	No.	£	No.	£	Cwts.	£	No.	£	No.	£	Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	
Whittings	
Conger Eels	
Gurnards	
Catfish	
Monks (Anglers)	
Hake	
Total of Round Fish	7	4	350	258	357	262	..	..	6	6	435	160	441	166	798	428	1,051	..	..	528	
FLAT.																							
Turbot	
Halibut	
Lemon Soles.	
Flounders	
Plaice, Large	
Plaice, Medium	
" Small	
Brill	
Dabs	
Whittches	
Megrim	
Total of Flat Fish	
Skates and Rays	4	1	..	..	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Squids	
Unclassified kinds	
GRAND TOTALS	11	5	350	258	361	263	..	..	8,340	2,784	1,117	371	9,457	3,155	9,818	3,418	14,122	..	..	5,899	
SHELL-FISH.																							
TOTAL VALUE OF ALL FISH																							
Fish used for Manure																							
" Bat																							
" (included above)																							

[illegible]

[illegible]

Whittings	357	234	2,258	1,014	554	480	633	477	1,187	957	..	..	..	..	..	..	..	1,544	1,191	1,078	783
Conger Eels	97	39	..	..	474	210	82	33	2,814	1,257	..	..	..	..	..	..	..	2,911	1,296	2,753	1,246
Gurnards	36	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	36	10	..	..
Catfish	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Monks (Anglers)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hake	192	136	27	31	3	3	..	..	30	34	6	6	13	13	9	28	28	250	198	38	28
Total of Round Fish.	3,012	2,107	3,250	1,447	3,060	1,675	3,420	1,982	9,730	5,104	367	137	1,310	419	2,345	4,022	1,401	16,764	8,612	14,063	6,495
FLAT.																					
Turbot	33	135	..	..	..	..	16	42	16	42	..	..	9	35	23	62	97	81	274	67	204
Halibut	14	39	5	12	..	..	1	2	6	14	..	..	..	..	..	..	2	20	53	15	32
Lemon Soles	139	317	..	..	..	..	1	3	1	3	..	..	2	11	..	2	..	142	331	33	137
Flounders	124	177	..	..	312	397	476	425	788	822	..	..	79	111	203	197	282	1,194	1,307	727	611
Plaice Large	..	..	..	..	..	..	365	394	365	394	..	..	1,165	1,572	535	629	1,700	2,746	3,550	3,134	4,352
" Small	681	955	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	19	56	3	5
Brill	16	52	..	..	..	..	1	2	1	2	..	..	6	5	2	2	2	10	10	8	7
Dabs	..	..	..	..	..	..	1	1	1	1	..	..	..	..	3	9	7	66	92	5	3
Whitches	66	92	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	8	..	..
Megrim	16	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total of Flat Fish	1,089	1,775	5	12	312	397	861	869	1,178	1,278	..	..	1,261	1,734	766	892	2,027	4,294	5,679	3,994	5,371
Skates and Rays	835	370	2,426	1,083	440	194	1,879	813	4,754	2,090	2	1	434	242	21	11	457	6,046	2,714	4,369	2,167
Squids	..	..	..	..	..	..	..	..	125	20	..	..	..	..	..	..	..	136	27	20	4
Unclassified kinds	31	7	125	20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
GRAND TOTALS	5,198	4,393	5,806	2,562	3,821	2,266	6,160	3,664	15,787	8,492	802	250	19,492	11,297	6,711	4,011	27,005	47,990	28,443	77,725	40,431
TOTAL VALUE OF ALL FISH	..	..	690,725	2,642	..	..	..	..	..	183	..	..	301	..	..	4,448	4,564	..	8,096	..	9,359
Fish used for Manure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	36,639	..	49,790
" Bait	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" (included above)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

SHELL-FISH.

APPENDIX B.—No. II.—FISH LANDED.—STATEMENT of the Total Quantity and Value of the different kinds of White and Shell-Fish landed on the **East Coast** during the Year 1914.

DESCRIPTION OF FISH.	TRAWLS.						LINES.						NETS.						1914. Grand Total Quantity and Value.		1913. Grand Total Quantity and Value.			
	Steam.			Motor.			Sail.			TOTAL.			Steam.			Motor.							Sail.			TOTAL.
	Quantity.	Value.	Cwt.	Quantity.	Value.	Cwt.	Quantity.	Value.	Cwt.	Quantity.	Value.	Cwt.	Quantity.	Value.	Cwt.	Quantity.	Value.	Cwt.	Quantity.	Value.	Cwt.	£	Cwt.	£
PELAGIC FISH.																								
Herrings	4,009	2,315	..	13	8	12	6	25	14	1,394,233	415,837	180,666	49,834	618,367	173,021	2,193,266	638,692	2,197,900	641,021	2,377,022	1,157,190			
Sprats	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8,443	8,117	1,775	
Shrimps	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	27,294	27,294	534	
Mackerel	4,753	2,007	..	6	2	517	251	524	254	17,653	2,902	4,694	772	5,677	937	28,024	4,611	33,301	6,872	44,107	6,940			
Total of Pelagic Fish	8,762	4,322	1	19	10	529	257	549	298	1,411,886	418,739	185,360	50,006	651,872	183,710	2,249,118	653,055	2,258,429	657,645	2,429,519	1,165,789			
DEMERSAL FISH.																								
(a) ROUND.																								
Coel	498,602	300,113	63,718	43,008	25,866	16,064	53,534	29,342	145,168	88,414	..	..	..	..	..	..	..	..	..	..	..	..
Codling	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Line	74,559	25,380	110,144	43,185	1,061	479	1,700	782	112,905	44,446	..	..	..	..	..	..	..	..	..	..	..	..
Torsk (Tusk)	2,614	852	13,217	6,495	3	1	5	2	13,225	6,498	..	..	..	..	..	..	..	..	..	..	..	..
Saithe (Coal Fish)	196,161	44,851	6,050	1,205	369	86	6,876	1,837	13,295	3,128	..	..	..	..	..	..	..	..	..	..	..	..
Hadocks, ex. la.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Large	456,114	371,600	813	618	22,453	22,646	53,462	43,950	76,728	67,214	..	..	..	..	..	..	..	..	..	..	..	..
Medium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Small	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whittings	204,939	124,711	7	5	4,439	2,541	9,016	5,135	13,462	7,631	..	..	..	..	..	..	..	..	..	..	..	..
Conger Eels	524	227	1,045	452	684	369	1,014	528	2,743	1,349	..	..	..	..	..	..	..	..	..	..	..	..
Guinards	6,713	1,038	..	18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Catfish	24,634	7,438	430	95	643	329	511	273	1,593	697	..	..	..	..	..	..	..	..	..	..	..	..
Monks (Anglers)	23,567	6,619	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hake	23,711	17,008	457	519	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total of Round Fish	1,482,438	899,887	197,892	95,382	55,536	42,520	126,394	81,888	379,732	219,985	10,882	6,290	3,810	2,064	30,174	15,905	44,866	24,259	1,907,086	1,144,081	2,179,406	1,196,145		

(b) FLAT.		SHELL-FISH.													
		Oysters.		Lobsters.		Crabs.		Mussels.		Clams.		Unclassified.			
No.	£	No.	£	No.	£	No.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
Turbot	3,866	11,738	31,624	5	11	4	31	11	31	11	31	11	31	11	31
Halibut	10,756	26,169	37	69	85	136	192	225	114	422	230	176	652	230	176
Lemon Soles	31,947	80,094	1,441	108	88	711	485	819	173	1,910	1,073	1,910	1,073	1,910	1,073
Flounders	954	1,441	..	..	..	..	..	..	..	..	..	..	..	..	..
Plaice, Large	35,450	68,412	..	524	565	7,062	7,471	7,586	8,036	3	2	408	920	3,711	4,407
" Medium . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" Small	418	758	..	173	134	1,821	1,178	1,994	1,312	..	..	108	71	108	71
Brill	8,602	3,615	..	..	..	..	..	..	..	..	..	..	..	..	..
Dabs	20,544	24,547	..	..	..	..	..	..	..	..	..	..	..	..	..
Whitchies	17,422	23,131	21	22	..	..	..	21	22	..	..	..	..	..	..
Megrimis . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total of Flat Fish	129,959	239,905	31,650	77,324	1,017	1,246	9,836	9,655	42,523	88,225	3	2	522	5,791	5,781
Skates and Rays	55,702	15,790	67,303	19,706	915	385	1,083	422	60,301	20,513	..	..	..	611	193
Squids	161	32	..	..	..	..	..	..	..	..	..	..	..	..	..
Unclassified kinds	2,538	549	39	15	63	25	249	112	331	150	..	..	..	20	56
Total for 1914	1,679,500	1,160,435	290,885	192,628	57,550	44,184	138,021	92,329	492,456	329,141	1,422,771	425,031	189,692	638,468	295,945
Total for 1913	2,019,440	1,251,258	239,761	155,402	30,431	20,772	149,310	94,022	419,505	270,196	1,453,837	719,560	133,335	888,868	413,998
Increase in 1914 . . . . .	..	..	57,121	37,226	27,119	23,412	..	..	72,931	58,945	..	..	..	..	..
Decrease in 1914	339,880	90,825	..	..	..	..	11,289	1,693	..	..	31,066	294,529	..	2,724	200,400
		SHELL-FISH.													
		Oysters.		Lobsters.		Crabs.		Mussels.		Clams.		Unclassified.			
No.	£	No.	£	No.	£	No.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
500	6	121,169	6,361	1,701,852	11,491	73,325	3,694	7,352	1,093	10,598	1,881	10,598	1,881	10,598	1,881
		Total Value of Shell-Fish for 1914													
		24,526													
		25,243													
		Decrease in 1914													
		717													
		Grand Total Value of Fish and Shell-Fish for 1914, 22,198,790													
		1913, 2,736,991													
		Decrease in 1914, 5538,201													

(b) **FLAT.**

Turbot . . .

Halibut . . .

Lemon Soles .

Flounders .
Pleuronectes Large .

Medium

Small .

Brill

Dabs . . .
Whitches . . .

Megrim's.

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Total of Flat FY

Skates and Ray

Squids

Unclassified kin

Total for 1914

Total 101 131

Total for 1913

100

APPENDIX B.—No. II.—FISH LANDED.—STATEMENT of the Total Quantity and Value of the different kinds of White and Shell-Fish landed in **Orkney** and **Shetland** during the Year 1914.

DESCRIPTION OF FISH.	TRAWLS.						LINES.						NETS.						1914. Grand Total Quantity and Value.		1913. Grand Total Quantity and Value.	
	Steam.		Motor.		Sail.		Steam.		Motor.		Sail.		Steam.		Motor.		Sail.						TOTAL.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Cwt.	£
PELAGIC FISH.																						
Herrings																						
Sprats																						
Spardings																						
Mackerel																						
Total of Pelagic Fish																						
DEMERSAL FISH.																						
(a) ROUND.																						
Cod	616	218	5,848	2,078	1,865	1,083	5,613	2,506	13,326	5,667					275	90			275	90	14,217	5,975
Codling			6,300	2,301	47	22	890	323	7,237	2,646					20	7			20	7	7,257	2,653
Ling			816	141	46	13	560	125	1,422	279											1,422	279
Torsk (Tusk)			9,013	1,039	40	4	11,467	1,543	20,540	2,586									9,180	334	29,720	2,920
Saithe (Coal Fish)																						
Haddock, ex. La.																						
Large	247	130			5,103	4,469	8,717	4,074	13,820	8,543												
Medium																						
Small	20	10			80	34	971	424	1,051	458												
Conger Eels																					1,071	468
Gurnards																						
Catfish																						
Monks (Anglers)																						
Hake																						
Total of Round Fish	883	358	21,977	5,559	7,181	5,625	28,238	8,995	57,396	20,179					295	97	9,180	334			67,754	20,968
																					76,753	19,992

[illegible]

APPENDIX B.—No. II.—FISH LANDED.—STATEMENT of the Total Quantity and Value of the different kinds of White and Shell-Fish landed on the **West Coast** during the Year 1914.

DESCRIPTION OF FISH.	TRAWLS.			LINES.						NETS.						1914. (Grand Total Quantity and Value.		1913. (Grand Total Quantity and Value.	
	Steam.		Value.	Steam.		Value.	Motor.		Value.	Sail.		Value.	TOTAL.						
	Quantity.	Cwt.		Quantity.	Cwt.		Quantity.	Cwt.		Quantity.	Cwt.		Quantity.	Cwt.	Quantity.					Cwt.
PELAGIC FISH.	Cwt.	£		Cwt.	£		Cwt.	£		Cwt.	£		Cwt.	£		Cwt.	£		
Herrings	231	134	..	..	..	..	..	..	..	698,750	194,332	104,688	47,267	94,635	33,847	898,073	275,446		
Sprats . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	68		
Sparlings . . . . .	..	..	..	..	..	..	..	..	..	14,137	3,145	16,455	3,130	7,603	1,208	38,225	7,543		
Mackerel . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	38,225	7,543		
Total of Pelagic Fish	231	134	..	..	..	..	..	..	..	712,887	197,477	121,173	50,397	102,254	35,183	936,314	283,057		
DEMERSAL FISH.																			
(a) ROUND.																			
Cod	560	320	7,121	3,114	4,656	2,003	14,804	6,739	26,581	11,856	232	124	1,315	553	7,068	2,693	8,615	3,370	15,959
Codling	78	45	4,093	2,166	1,113	539	4,198	1,349	9,409	4,054	..	..	33	13	23	9	56	22	24,073
Ling	7	3	117	33	56	8	979	214	1,152	255	..	..	..	..	..	..	..	..	9,543
Torsk (Tusk)	233	48	2,600	529	307	59	12,362	1,948	15,269	2,536	129	..	2,319	463	7,854	1,588	10,362	2,078	1,816
Saithe (Coal Fish)	1,692	1,442	10	7	735	619	8,984	3,973	9,679	4,599	..	..	23	14	4	2	27	16	32,224
Haddock, ex. La. . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25,804
Large . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,682
Medium . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13,819
Small . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6,057
Whiting	377	247	..	..	..	657	645	1,558	1,071	2,215	..	..	..	..	..	..	..	..	2,592
Conger Eels	100	42	14,364	6,293	6,074	2,349	2,676	1,153	23,114	9,795	..	..	..	..	..	..	..	..	1,943
Gurnards	60	21	..	..	..	..	288	67	288	67	..	..	..	..	..	..	..	..	23,214
Catfish . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9,837
Monks (Anglers)	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	930
Hake	264	241	1,715	2,307	145	144	..	..	..	..	..	..	565	781	533	749	1,104	1,536	253
Total of Round Fish .	3,374	2,410	30,025	14,449	13,743	6,366	45,818	16,524	89,586	37,339	367	157	4,255	1,824	15,482	5,041	20,104	7,022	113,064
																			46,771
																			47,887

(b) FLAT.																			
Turbot .	39	165	21	57	19	51	40	108	..	9	35	23	62	32	97	111	370	101	291
Halibut .	15	42	36	63	380	261	741	1,014	..	..	..	..	..	..	..	756	1,056	1,895	2,145
London Soles .	141	321	..	..	..	41	45	1,832	..	..	..	..	..	..	..	188	375	60	176
Flounders .	124	177	..	..	313	399	2,666	1,433	2,979	1,832	..	328	352	671	797	3,774	2,806	4,267	2,214
Plaice .	809	1,320	..	..	..	..	..	1,395	..	1,762	2,725	813	929	257	3,654	5,032	6,369	4,790	5,814
Medium .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Small .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Brill .	17	53	..	..	1	2	1	2	..	..	..	..	..	..	..	20	57	3	5
Labrus .	4	6	..	..	8	9	8	9	..	..	..	..	..	..	..	21	22	13	10
Whitches .	81	109	..	..	..	..	..	..	..	..	..	..	..	..	..	81	109	8	6
Megrimus .	27	24	..	..	..	..	..	..	..	..	..	..	..	..	..	27	24	..	..
Total of Flat Fish .	1,257	2,217	325	690	420	599	4,717	3,114	5,462	4,403	..	2,122	3,221	1,169	1,347	10,010	11,188	11,137	10,661
Skates and Rays	1,022	434	9,982	4,048	3,403	1,346	5,187	1,488	15,572	6,892	2	440	245	27	13	20,063	7,575	18,542	5,948
Squids	31	7	399	47	68	15	2,045	418	2,512	480	..	86	34	82	26	2,711	547	4,222	754
Unclassified kinds	5,915	5,202	40,731	19,234	17,634	8,326	57,767	21,544	116,132	49,104	713,256	197,635	128,076	55,721	119,014	41,610	960,346	294,966	481,718
Total for 1914	2,147	2,230	42,152	18,210	12,335	6,435	90,724	28,970	145,211	53,615	622,797	215,595	248,375	103,938	221,925	101,340	1,093,097	425,873	1,240,455
Total for 1913	3,768	2,972	..	1,024	5,299	1,891	..	..	..	90,459	..	..	..	..	..	..	..	..	..
Increase in 1914	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Decrease in 1914	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

SHELL-FISH.										
Oysters.			Lobsters.		Crabs.		Mussels.		Clams.	
No.	£	No.	£	No.	£	Cwt.	£	Cwt.	£	Cwt.
699,925	2,686	476,316	20,613	118,589	526	22,849	1,434	..	..	..
Grand Total Value of Fish and Shell-Fish for 1914, £383,776										
1913, 521,244										
Decrease in 1914, £137,468										

SHELL-FISH.										
Oysters.			Lobsters.		Crabs.		Mussels.		Clams.	
No.	£	No.	£	No.	£	Cwt.	£	Cwt.	£	Cwt.
699,925	2,686	476,316	20,613	118,589	526	22,849	1,434	..	..	..
Grand Total Value of Fish and Shell-Fish for 1914, £383,776										
1913, 521,244										
Decrease in 1914, £137,468										

APPENDIX B.—No. II.—FISH LANDED.—STATEMENT of the Total Quantity and Value of the different kinds of White and Shell-Fish landed by **Foreign Vessels** during the Year 1914.

DESCRIPTION OF FISH.	TRAWLS.				LINES.								NETS.				1914. Grand Total Quantity and Value.		1913. Grand Total Quantity and Value.	
	Steam.		Value.	Quantity.	Steam.		Value.	Quantity.	Motor.		Value.	Quantity.	Sail.		Value.	Quantity.				
	Quantity.	Cwt.			Quantity.	Cwt.			Quantity.	Cwt.			Quantity.	Cwt.						
PELAGIC FISH.																				
Herrings	30	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	39	10	2	1
Sprats	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sparlings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mackerel	59	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	59	13	15	1
Total of Pelagic Fish	89	23	..	..	..	..	..	..	..	..	..	..	..	..	..	..	89	23	17	2
DEMERSAL FISH.																				
(a) ROUND.																				
Cod	355,702	114,931	..	..	..	..	..	..	..	..	..	..	..	..	..	..	355,702	114,931	386,093	121,506
Codling	6,120	2,027	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6,120	2,027	6,577	2,081
Ling	83	14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	83	14	111	30
Torsk (Tusk)	75,879	22,483	..	..	..	..	..	..	..	..	..	..	..	..	..	..	75,879	22,483	89,629	26,169
Saithe (Coal Fish)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Haddocks, ex. La.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Large	52,215	21,332	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52,215	21,332	73,497	29,473
Medium	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Small	2,826	1,062	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2,826	1,062	1,117	436
Whiting	14	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	8	10	1
Coner Eels	130	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	130	11	170	11
Gurnards	4,567	557	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4,567	557	3,474	471
Catfish	195	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	195	35	344	65
Monks (Anglers)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hake	429	318	..	..	..	..	..	..	..	..	..	..	..	..	..	..	429	318	60	32
Total of Round Fish	498,160	162,778	..	..	..	..	..	..	..	..	..	..	..	..	..	..	498,160	162,778	541,082	180,275

(b) FLAT.		17	32	8	18
Turbot	92	1,944	2,757	2,739	3,928
Halibut	2,757	1,356	1,825	829	1,074
Lemon Soles	10	9	10	..	..
Flounders	2,095	1,420	2,095	2,510	2,926
Plaice, Large . . . . .	..	..	..	..	..
" Medium . . . . .	..	..	..	..	..
" Small . . . . .	..	..	..	..	..
Brill	11	6	11	9	18
Dabs	21	50	21	24	9
Whites	759	996	759	1,064	1,329
Megrim	136	270	136	491	238
Total of Flat Fish	7,646	6,068	7,646	8,574	9,540
Skates and Rays	267	1,432	267	2,089	420
Squids	1,577	8,331	1,577	9,310	1,744
Unclassified kinds . . . . .	..	..	..	..	..
Total for 1914	172,291	514,080	172,291	561,022	191,981
Total for 1913	177,186	530,178	177,186	..	..
Increase in 1914 . . . . .	..	..	..	..	..
Decrease in 1914	4,895	16,098	4,895	..	..
Total . . . . .	..	..	..	46,942	19,600

NOTE.—Of the above landings, 506,875 cwts., valued at £169,712, were landed at Aberdeen, mainly by German trawlers; 6,835 cwts., valued at £2,350, in Orkney, by Dutch trawlers; and 320 cwts., valued at £229, at Oban, by a Danish trawler.

APPENDIX C.

FISH USED IN A FRESH STATE.—Table showing the Estimated Quantity of each Species of Fish consumed fresh in Scotland, or dispatched from Scotland in a fresh state, in the Year 1914.

Description of Fish.	1914. Quantity.	1913. Quantity.
	Cwts.	Cwts.
Herrings	* 372,332	* 203,565
Sprats	17,793	6,013
Sparlings	550	305
Mackerel	67,108	54,361
Cod and Codlings	401,593	499,485
Ling	85,030	95,519
Torsk (Tusk)	2,177	4,443
Saithe	50,749	100,511
Haddocks	392,339	447,655
Whittings	141,394	128,403
Conger Eels	26,627	21,943
Gurnards	7,345	6,762
Catfish	9,674	21,624
Monks	† 1,172	† 696
Hake	27,844	18,914
Squids	161	28
Turbot	4,005	3,791
Halibut	46,423	48,945
Lemon Soles	33,790	36,696
Flounders	7,488	8,239
Plaice	53,680	46,160
Brill	444	208
Dabs	11,114	9,907
Whitches and Megrimis	39,361	48,800
Skates and Rays	149,648	135,498
Unclassified kinds	6,471	13,382
Total	1,956,312	1,961,853

* Exclusive of herrings exported sprinkled or iced.

† Exclusive of monks exported fresh.

APPENDIX D.—No. I.

FISH CURED.—RETURN showing the Quantity of each Species of Fish Cured, and the Mode of Cure, in the Year 1914.

No.	DISTRICTS.	HERRINGS.					
		Barrels Gutted.	Barrels Un- gutted.	Barrels Kip- pered.	Barrels of Bloat- ers or Reds.	Barrels Tinned.	Total Number of Barrels.
	EAST COAST.						
1	Eyemouth	8,539	..	46,144	5,730	7,193	67,606
2	Leith . . . . .	..	..	7,018	1,800	..	8,818
3	Anstruther	1,997	..	318	383	..	2,698
4	Montrose	3,155	254	281	128	381	4,199
5	Stonehaven	80	..	796	..	..	876
6	Aberdeen	9,948	..	13,171	5,840	26,672	55,631
7	Peterhead	181,439	..	19,116	12	1,361	201,928
8	Fraserburgh	168,636	..	12,224	..	11,124	191,984
9	Banff	4,386	..	1,708	..	..	6,094
10	Buckie	5,897	..	439	..	..	6,336
11	Findhorn	2,850	..	..	..	..	2,850
12	Cromarty . . . . .	..	..	..	..	..	..
13	Helmsdale	24	..	..	..	..	24
14	Lybster . . . . .	..	..	..	12	..	12
15	Wick	134,713	3,216	15,286	..	..	153,215
	East Coast Totals carried down }	521,664	3,470	116,501	13,905	46,731	702,271
	Orkney and Shetland.						
16	Orkney	113,119	..	360	..	..	113,479
17	Shetland	331,741	275	3,969	..	..	335,985
	Orkney and Shetland Totals carried down }	444,860	275	4,329	..	..	449,464
	WEST COAST.						
18	Stornoway	129,956	9,619	37,329	..	..	176,904
19	Barra	19,311	..	..	..	..	19,311
20	Loch Broom	3,996	..	..	..	..	3,996
21	Loch Carron and Skye	3,553	..	361	..	..	3,914
22	Fort-William	6,270	..	2,828	..	..	9,098
23	Campbeltown	309	..	102	..	..	411
24	Inveraray . . . . .	..	..	..	..	..	..
25	Rothsay . . . . .	..	..	250	..	..	250
26	Greenock	3,623	..	15,062	172	..	18,857
27	Ballantrae . . . . .	..	..	52	..	..	52
	West Coast Totals carried down }	167,018	9,619	55,984	172	..	232,793
	Totals brought down.						
	East Coast	521,664	3,470	116,501	13,905	46,731	702,271
	Orkney and Shetland	444,860	275	4,329	..	..	449,464
	West Coast	167,018	9,619	55,984	172	..	232,793
	Grand Totals for 1914	1,133,542	13,264	176,814	14,077	46,731	1,384,528
	Grand Totals for 1913	1,392,961	10,082	154,042	9,389	49,952	1,616,426
	Increase in 1914 . . . . .	..	3,282	22,772	4,688	..	..
	Decrease in 1914	259,419	..	..	..	3,221	231,898

Note 1.—Of the quantity cured, gutted, 57 barrels were cured at sea, 1 vessel of 56 tons, and employing 3 men, having been fitted out for that purpose.

Note 2.—The above figures represent the quantity cured "bungpacked," i.e. as finally ready for export. The corresponding equivalents in the "seastick" state, i.e. before the herrings have "pined" or settled down in the barrels, will be found under Appendix D. No II.

APPENDIX D.—No. I.—*continued.*

FISH CURED.—RETURN showing the Quantity of each Species of Fish Cured, and the Mode of Cure, in the year 1914.

OTHER KINDS.						
Description of Fish.	Dried. cwts.	Smoked cwts.	Pickled cwts.	Tinned cwts.	Total 1914. cwts.	Total 1913. cwts.
Cod . .	165,911	55,718	1,726	50	223,405	285,790
Ling . .	39,571	2,450	284	..	42,305	40,982
Tusk . .	2,952	2,470	40	..	5,462	4,730
Saithe . .	53,002	43,700	16	..	96,718	121,961
Haddocks .	9,950	93,379	..	1,050	104,379	134,821
Whittings .	..	41,748	..	..	41,748	47,671
Catfish . .	..	7,040	..	..	7,040	4,060
Monks . .	..	2,730	..	..	2,730	1,850
Halibut . .	..	..	..	76	76	110
Mackerel .	..	..	6,461	2,270	8,731	12,844
Sprats . .	..	..	8,262	..	8,262	1,315
Unclassified .	..	3,440	..	..	3,440	5,100
Total .	271,386	252,675	16,789	3,446	544,296	661,234

NOTE.—The quantities given above represent the weight after cure.

APPENDIX D.—No. II.

HERRINGS CURED.—STATEMENT showing the Number of Barrels of Herrings Cured Gutt and Ungutt, on the East and West Coasts of Scotland, for the Hundred and four years ended 31st December 1914.

Year ended	* East Coast.		Total.	West Coast.		GRAND TOTAL.
	Gutt.	Ungutt, Kipped, &c.		Gutt.	Ungutt, Kipped, &c.	
6th April 1811	2,008 $\frac{1}{2}$	6,630	8,638 $\frac{1}{2}$	62,186	19,110	81,296
" 1812	4,325 $\frac{1}{2}$	10,332	14,657 $\frac{1}{2}$	65,922	24,518	90,440
" 1813	9,179	20,950 $\frac{1}{2}$	30,129 $\frac{1}{2}$	76,561 $\frac{3}{4}$	31,025 $\frac{1}{2}$	107,587 $\frac{1}{4}$
" 1814	9,503	46,800 $\frac{1}{2}$	56,303 $\frac{1}{2}$	37,969	5,773	43,742
" 1815	24,314	36,827	61,141	76,021 $\frac{1}{4}$	7,756	83,777 $\frac{1}{4}$
" 1816	55,411 $\frac{1}{2}$	18,416 $\frac{1}{2}$	73,828	73,292 $\frac{1}{2}$	2,578 $\frac{1}{4}$	75,870 $\frac{3}{4}$
" 1817	90,710 $\frac{1}{2}$	26,252 $\frac{1}{2}$	116,963	60,581 $\frac{1}{2}$	3,233 $\frac{1}{2}$	63,815
" 1818	118,594 $\frac{3}{4}$	8,287 $\frac{1}{4}$	126,882	76,765	4,491 $\frac{1}{2}$	81,256 $\frac{1}{2}$
" 1819	221,959 $\frac{1}{2}$	22,158	244,117 $\frac{1}{2}$	75,197 $\frac{1}{2}$	6,441	81,638 $\frac{1}{2}$
" 1820	267,556 $\frac{1}{2}$	27,391 $\frac{1}{2}$	294,948	72,629 $\frac{1}{2}$	4,512	77,141 $\frac{1}{2}$
" 1821	318,473 $\frac{1}{2}$	23,909 $\frac{1}{4}$	342,382 $\frac{3}{4}$	88,626 $\frac{1}{2}$	2,613	91,239 $\frac{1}{2}$
" 1822	229,070	12,808 $\frac{3}{4}$	241,878 $\frac{3}{4}$	56,342 $\frac{1}{2}$	1,328	57,670 $\frac{1}{2}$
" 1823	183,687	15,256 $\frac{1}{4}$	198,943 $\frac{1}{4}$	34,211	245 $\frac{1}{2}$	34,456 $\frac{1}{2}$
" 1824	272,340 $\frac{1}{2}$	32,402	304,742 $\frac{1}{2}$	52,792	802 $\frac{1}{4}$	53,594 $\frac{1}{4}$
" 1825	227,667	28,849 $\frac{3}{4}$	256,516 $\frac{3}{4}$	64,623	593	65,216
" 1826	289,101	31,703 $\frac{1}{4}$	320,804 $\frac{1}{4}$	42,602	121	42,723
" 1827	211,042 $\frac{3}{4}$	22,241 $\frac{1}{2}$	233,284 $\frac{1}{2}$	43,231	117	43,348
" 1828	287,906 $\frac{1}{2}$	37,882 $\frac{1}{2}$	325,789	45,632	2,039 $\frac{1}{2}$	47,671 $\frac{1}{2}$
" 1829	249,365 $\frac{1}{2}$	41,047 $\frac{1}{4}$	290,412 $\frac{3}{4}$	47,525	945	48,470
" 1830	216,427 $\frac{1}{2}$	35,226	251,653 $\frac{1}{2}$	59,494	639	60,133
" 1831	315,479	51,609 $\frac{3}{4}$	367,088 $\frac{1}{4}$	46,631	855	47,486
" 5th April 1832	259,197 $\frac{1}{2}$	36,183 $\frac{1}{2}$	295,381	49,216 $\frac{1}{4}$	3,167	52,383 $\frac{1}{4}$
" 1833	267,928 $\frac{1}{2}$	45,564 $\frac{3}{4}$	313,493 $\frac{1}{4}$	77,144	573	77,717

* Including Orkney and Shetland.

APPENDIX D.—No. II.—*continued.*

Year ended	* East Coast.			West Coast.			GRAND TOTAL.
	Gutted.	Ungutted, Kippered, &c.	Total.	Gutted.	Ungutted, Kippered, &c.	Total.	
5th April 1834	315,159	56,374 $\frac{3}{4}$	371,533 $\frac{3}{4}$	64,427 $\frac{1}{2}$	137	64,564 $\frac{1}{2}$	436,098 $\frac{1}{4}$
" 1835	166,539 $\frac{1}{2}$	33,339 $\frac{1}{2}$	199,879	45,091 $\frac{1}{2}$	633	45,724 $\frac{1}{2}$	245,603 $\frac{1}{2}$
" 1836	343,693 $\frac{1}{2}$	68,891 $\frac{1}{2}$	412,585 $\frac{1}{2}$	46,551 $\frac{1}{2}$	479	47,033 $\frac{1}{2}$	459,618 $\frac{1}{2}$
" 1837	229,371	71,449 $\frac{1}{4}$	300,820 $\frac{1}{4}$	54,859	1,892 $\frac{1}{2}$	6,751 $\frac{1}{2}$	357,571 $\frac{3}{4}$
" 1838	307,625	82,634 $\frac{3}{4}$	390,259 $\frac{3}{4}$	68,990 $\frac{1}{2}$	2,374 $\frac{1}{2}$	71,365	461,624 $\frac{1}{2}$
" 1839	308,581	119,489 $\frac{1}{2}$	428,070 $\frac{1}{2}$	66,046 $\frac{1}{2}$	1,672 $\frac{1}{2}$	67,719	495,789 $\frac{1}{2}$
" 1840	345,074 $\frac{1}{2}$	103,160	448,234 $\frac{1}{2}$	54,208 $\frac{1}{2}$	343	54,551 $\frac{1}{2}$	502,786
" 1841	334,539	78,225 $\frac{1}{2}$	412,764 $\frac{1}{2}$	87,562 $\frac{1}{2}$	3,402 $\frac{1}{2}$	90,965	503,729 $\frac{1}{2}$
" 1842	404,502 $\frac{1}{2}$	116,675 $\frac{1}{2}$	521,178	78,755 $\frac{1}{2}$	2,183 $\frac{1}{2}$	80,939	602,117
" 1843	376,374	118,755 $\frac{1}{2}$	495,129 $\frac{1}{2}$	61,568 $\frac{1}{2}$	1,627	63,195 $\frac{1}{2}$	558,325 $\frac{1}{2}$
" 1844	384,729	105,927 $\frac{1}{2}$	490,656 $\frac{1}{2}$	81,643	4,776	86,419	577,075 $\frac{1}{2}$
" 1845	305,461 $\frac{1}{2}$	72,649 $\frac{1}{4}$	378,110 $\frac{3}{4}$	80,836	901	81,737	459,847 $\frac{1}{4}$
" 1846	343,927	82,607 $\frac{1}{2}$	426,534 $\frac{1}{2}$	64,056	3,753 $\frac{1}{2}$	67,809 $\frac{1}{2}$	494,344
" 1847	343,009 $\frac{3}{4}$	137,296 $\frac{3}{4}$	480,306 $\frac{3}{4}$	67,613	11,263	78,876	559,182 $\frac{3}{4}$
" 1848	323,471 $\frac{1}{2}$	135,479	458,950 $\frac{1}{2}$	46,636 $\frac{1}{2}$	9,570	56,206 $\frac{1}{2}$	515,157
" 1849	337,450	155,654 $\frac{1}{4}$	493,104 $\frac{1}{4}$	52,473	6,981	59,454	552,558 $\frac{1}{4}$
" 1850	427,138	152,530	579,668	77,171 $\frac{1}{2}$	25,929 $\frac{3}{4}$	102,201 $\frac{1}{4}$	681,869 $\frac{1}{4}$
" 1851	320,493	129,532 $\frac{3}{4}$	450,025 $\frac{3}{4}$	57,694	21,134	78,828	528,853 $\frac{3}{4}$
" 1852	348,573	109,933	458,506	68,660 $\frac{1}{4}$	36,220 $\frac{3}{4}$	104,881	563,387
31st December 1852	331,055 $\frac{1}{2}$	89,355	420,410 $\frac{1}{2}$	44,623 $\frac{1}{2}$	13,903	58,526 $\frac{1}{2}$	478,937
" 1853	482,017	165,459 $\frac{1}{4}$	647,476 $\frac{1}{4}$	78,350	28,431 $\frac{1}{2}$	106,781 $\frac{1}{2}$	754,257 $\frac{3}{4}$
" 1854	410,332	132,977 $\frac{3}{4}$	543,309 $\frac{3}{4}$	48,247 $\frac{1}{4}$	31,207 $\frac{3}{4}$	79,455	622,764 $\frac{3}{4}$
" 1855	505,481 $\frac{3}{4}$	136,687 $\frac{1}{2}$	642,169 $\frac{1}{2}$	77,175 $\frac{1}{2}$	32,631	109,806 $\frac{1}{2}$	751,975 $\frac{3}{4}$
" 1856	396,650	92,400 $\frac{1}{2}$	489,050 $\frac{1}{2}$	69,755 $\frac{1}{2}$	32,492 $\frac{1}{2}$	102,248	591,298 $\frac{1}{2}$
" 1857	390,775	59,712 $\frac{1}{2}$	450,487 $\frac{1}{2}$	74,447 $\frac{1}{2}$	25,763 $\frac{3}{4}$	100,211	550,698 $\frac{3}{4}$
" 1858	410,524 $\frac{3}{4}$	111,440 $\frac{3}{4}$	521,965 $\frac{1}{2}$	59,868 $\frac{1}{2}$	23,350	83,218 $\frac{1}{2}$	605,184
" 1859	308,518 $\frac{1}{4}$	55,584	364,102 $\frac{1}{4}$	72,541	20,487	93,028	457,130 $\frac{1}{4}$

* Including Orkney and Shetland.

APPENDIX D.—No. II.—continued.

Year ended	* East Coast.			West Coast.			GRAND TOTAL.
	Gutted.	Ungutted, Kipped, &c.		Gutted.	Ungutted, Kipped, &c.		
		Total.	Total.		Total.	Total.	
31st December 1860	424,201 $\frac{1}{2}$	103,086 $\frac{1}{2}$	527,287 $\frac{3}{4}$	71,894	37,891 $\frac{1}{2}$	109,785 $\frac{1}{2}$	637,073 $\frac{1}{4}$
1861	447,931 $\frac{1}{2}$	97,207	545,138 $\frac{1}{2}$	71,241 $\frac{1}{2}$	34,336 $\frac{1}{2}$	105,578	650,716 $\frac{1}{2}$
1862	536,602 $\frac{1}{2}$	88,911	625,513 $\frac{1}{2}$	119,257 $\frac{1}{2}$	52,685	171,942 $\frac{1}{2}$	797,456
1863	445,596 $\frac{1}{2}$	75,511 $\frac{3}{4}$	521,108 $\frac{1}{4}$	61,396 $\frac{1}{2}$	26,810	88,206 $\frac{1}{2}$	609,314 $\frac{3}{4}$
1864	378,752	88,107 $\frac{3}{4}$	466,859 $\frac{1}{4}$	99,737 $\frac{1}{2}$	42,889	142,626 $\frac{1}{2}$	609,486 $\frac{1}{4}$
1865	374,424	73,814 $\frac{1}{2}$	448,238 $\frac{1}{2}$	95,920 $\frac{1}{2}$	57,207	153,127 $\frac{1}{2}$	601,366
1866	398,358	72,420 $\frac{1}{2}$	470,778 $\frac{1}{2}$	99,396 $\frac{1}{2}$	74,431	173,827 $\frac{1}{2}$	644,605 $\frac{3}{4}$
1867	492,172 $\frac{1}{2}$	81,978 $\frac{1}{2}$	574,150 $\frac{3}{4}$	139,547 $\frac{1}{2}$	90,392	229,939 $\frac{1}{2}$	804,090
1868	363,922 $\frac{1}{2}$	62,906	426,828 $\frac{3}{4}$	81,546	129,886 $\frac{1}{2}$	211,432 $\frac{1}{2}$	638,260 $\frac{3}{4}$
1869	395,500 $\frac{1}{2}$	61,809 $\frac{3}{4}$	457,310 $\frac{1}{4}$	93,330 $\frac{1}{2}$	124,502 $\frac{1}{4}$	217,832 $\frac{3}{4}$	675,143
1870	508,805 $\frac{1}{2}$	98,318	607,123 $\frac{1}{2}$	148,254	77,783	226,037	833,160 $\frac{1}{2}$
1871	585,172	94,178	679,350	83,317 $\frac{1}{2}$	62,808 $\frac{1}{2}$	146,125 $\frac{3}{4}$	825,475 $\frac{1}{2}$
1872	623,443 $\frac{1}{2}$	62,341	685,784 $\frac{1}{2}$	48,260	39,815	88,075	773,859 $\frac{1}{2}$
1873	710,376 $\frac{1}{2}$	96,983 $\frac{1}{2}$	807,360	86,525 $\frac{1}{2}$	45,348	131,873 $\frac{1}{2}$	939,233 $\frac{1}{2}$
1874	789,345 $\frac{1}{2}$	77,489 $\frac{1}{2}$	866,835 $\frac{1}{2}$	97,657	36,068 $\frac{3}{4}$	133,725 $\frac{3}{4}$	1,000,561
1875	774,293 $\frac{1}{2}$	67,729	842,022 $\frac{1}{2}$	60,529	40,428 $\frac{1}{2}$	100,957 $\frac{1}{2}$	942,980
1876	454,164	59,230	513,394	32,074 $\frac{1}{2}$	52,729	84,803 $\frac{3}{4}$	598,197 $\frac{1}{2}$
1877	618,116 $\frac{3}{4}$	65,529 $\frac{1}{2}$	683,646	98,754 $\frac{1}{2}$	65,318 $\frac{1}{2}$	164,072 $\frac{3}{4}$	847,718
1878	702,433 $\frac{1}{2}$	70,927 $\frac{1}{2}$	773,361	69,122 $\frac{1}{2}$	63,284 $\frac{1}{2}$	132,407	905,768
1879	563,754	62,833 $\frac{1}{2}$	626,587 $\frac{1}{2}$	92,237	122,971 $\frac{1}{2}$	215,208 $\frac{1}{2}$	841,796
1880	1,096,953 $\frac{1}{2}$	104,151 $\frac{1}{2}$	1,201,105	127,245	145,250 $\frac{1}{2}$	272,495 $\frac{1}{2}$	1,473,600 $\frac{1}{2}$
1881	830,751 $\frac{1}{2}$	73,602 $\frac{1}{2}$	904,353 $\frac{1}{4}$	84,346 $\frac{1}{2}$	122,455	206,801 $\frac{3}{4}$	1,111,155 $\frac{1}{4}$
1882	879,243 $\frac{1}{2}$	98,983	978,226 $\frac{1}{2}$	101,512	203,235	304,747	1,282,973 $\frac{1}{2}$
1883	960,428 $\frac{1}{2}$	87,477 $\frac{1}{2}$	1,047,905 $\frac{3}{4}$	72,658 $\frac{1}{2}$	148,848 $\frac{1}{2}$	221,506 $\frac{3}{4}$	1,269,412 $\frac{1}{2}$
1884	1,323,989 $\frac{1}{2}$	132,061 $\frac{1}{2}$	1,456,050 $\frac{1}{2}$	128,223 $\frac{1}{2}$	112,803	241,026 $\frac{3}{4}$	1,697,077 $\frac{1}{2}$
1885	1,244,259	74,723 $\frac{3}{4}$	1,318,982 $\frac{1}{4}$	108,190	145,779 $\frac{3}{4}$	253,969 $\frac{3}{4}$	1,572,952 $\frac{1}{4}$
1886	1,017,152	125,287 $\frac{3}{4}$	1,142,439 $\frac{1}{4}$	76,211	93,572 $\frac{1}{2}$	169,783 $\frac{1}{2}$	1,312,223 $\frac{1}{4}$

* Including Orkney and Shetland.

APPENDIX D.—No. II.—continued.

Year ended	* East Coast.			West Coast.			GRAND TOTAL.
	Gutted.	Ungutted, Kipped, &c.	Total.	Gutted.	Ungutted, Kipped, &c.	Total.	
31st December 1887	962,116	127,588	1,089,704	101,937 ³ / ₄	111,782 ¹ / ₂	213,720 ¹ / ₄	1,303,424 ¹ / ₄
1888	790,458	82,155 ¹ / ₄	872,613 ¹ / ₄	116,542	129,717	246,259	1,118,872 ¹ / ₄
1889	1,071,686	112,171	1,183,857	105,417	108,233	213,650	1,397,507
1890	1,042,089	81,218 ¹ / ₂	1,123,307 ¹ / ₂	142,340 ¹ / ₂	38,955	181,295 ¹ / ₂	1,304,603
1891	797,219	61,427	858,646	208,024	59,402	267,426	1,126,072
1892	1,012,452	82,267	1,094,719	125,299	37,924	163,223	1,257,942
1893	1,177,365	110,236	1,287,601	90,977	30,960 ¹ / ₄	121,937 ¹ / ₄	1,409,538 ¹ / ₄
1894	1,312,926	98,783	1,411,709	91,489	14,879	106,368	1,518,077
1895	1,314,225	79,695	1,393,920	114,902	19,312	134,214	1,528,134
1896	1,232,549	101,098	1,333,647	132,234	26,035	158,269	1,491,916
1897	732,454	72,457	804,911	143,319	41,212	184,531	989,442
1898	1,500,533	92,883 ¹ / ₂	1,593,416 ¹ / ₂	174,743	37,188	211,931	1,805,347
1899	912,841	71,512	984,353	154,768	36,534	191,302	1,175,655
1900	968,077	98,673	1,066,750	156,522	32,333	188,855	1,255,605
1901	1,334,010	118,173	1,452,183	109,056	44,646	153,702	1,605,885
1902	1,507,138	125,933	1,633,071	123,437	46,651	170,088	1,803,159
1903	1,331,664	138,949	1,470,613	105,654	42,543	148,197	1,618,810
1904	1,737,345	170,510	1,907,855	102,548	52,571	155,119	2,062,974
1905	1,766,734	164,098	1,930,832	112,156	68,613	180,769	2,111,601
1906	1,679,947	166,011	1,845,958	116,343	35,561	151,904	1,997,862
1907	2,181,017	189,892	2,370,909	147,945	59,414	207,359	2,578,268
1908	1,787,835	183,495	1,971,330	163,931	64,808	228,739	2,200,069
1909	1,507,914	180,740	1,688,654	148,410	53,201	201,611	1,890,265
1910	1,934,320	211,236	2,145,556	145,628	37,690	183,318	2,328,874
1911	1,667,432	207,335	1,874,767	139,272	32,708	171,980	2,046,747
1912	1,660,972	178,116	1,839,088	148,414	34,945	183,359	2,022,447
1913	1,407,323	172,591	1,579,914	253,804	52,878	306,682	1,886,596
1914	1,176,361	185,854	1,362,215	185,925	66,387	252,312	1,614,527

* Including Orkney and Shetland.

APPENDIX E.—No. I.

CURED FISH BRANDED.—RETURN showing the Number of Barrels of Cured Herrings Branded, distinguishing the different Brands, and the amount of Brand Fees Collected, during the Year 1914.

NUMBER OF BARRELS OF CURED HERRINGS BRANDED.										Fees Received.		DISTRICTS.		No.							
										La. Full.	Mat. Full.	Fill- ing.	Mattie.	La. Spent.	Spent.	Total.					
EAST COAST.										..	39	38	37½	493½	..	..	608	£	s. d.	EAST COAST.
1	Eyemouth .	.	.	.	.	..	..	..	..	..	..	..	..	..	..	..	10	2	8	Eyemouth.
2	Leith .	.	.	.	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Leith.
3	Anstruther .	.	.	.	.	..	..	..	..	..	..	..	..	..	..	..	35	4	0	Anstruther.
4	Montrose .	.	.	.	.	11½	73	119	1,765½	..	..	..	..	..	..	2,112	..	..	..	Montrose.
5	Stonehaven .	.	.	.	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Stonehaven.
6	Aberdeen .	.	.	.	.	..	26½	1	653½	..	..	..	..	..	..	870	14	10	0	Aberdeen.
7	Peterhead .	.	.	.	.	1,517½	597	1,108	20,689	171½	..	..	..	..	..	27,271	454	10	4	Peterhead.
8	Fraserburgh .	.	.	.	.	2,051½	1,287½	3,881½	13,517	9	..	..	..	..	..	26,320	438	13	4	Fraserburgh.
9	Baiff .	.	.	.	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Baiff.
10	Buckie .	.	.	.	.	11	252	..	115	..	..	..	..	..	..	539	8	19	8	Buckie.
11	Findhorn .	.	.	.	.	..	42½	3½	430½	..	..	..	..	..	..	686	11	8	8	Findhorn.
12	Cromarty .	.	.	.	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Cromarty.
13	Helmisdale .	.	.	.	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Helmisdale.
14	Lybster .	.	.	.	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Lybster.
15	Wick .	.	.	.	.	148½	1,197	88	2,130½	3	..	..	..	..	..	7,713½	128	11	2	Wick.
East Coast Totals carried down										3,740	13,621½	3,513½	5,266½	39,794½	183½	..	66,119½	1,101	19	10	East Coast Totals carried down.
Orkney and Shetland.										1,419½	5,869	543	1,353	1,812	10,996½	183	5	6	Orkney and Shetland.
16	Orkney .	.	.	.	.	186	..	..	..	..	..	..	..	..	..	186	3	2	0	Orkney.
17	Shetland .	.	.	.	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Shetland.
Orkney and Shetland Totals carried down										1,605½	5,869	543	1,353	1,812	11,182½	186	7	6	Orkney and Shetland Totals carried down.
Totals brought down.										3,740	13,621½	3,513½	5,266½	39,794½	183½	..	66,119½	1,101	19	10	Totals brought down.
East Coast										1,605½	5,869	543	1,353	1,812	11,182½	186	7	6	East Coast.
Orkney and Shetland										5,345½	19,490½	4,056½	6,619½	41,603½	183½	..	77,302	1,288	7	4	Orkney and Shetland.
Grand Totals for 1914										42,578	102,549½	39,341	7,723½	51,427½	2,826	159	246,604½	4,110	1	6	Grand Totals for 1914
Grand Totals for 1913										Grand Totals for 1913.
Increase in 1914										37 292½	83,059	35,284½	1,104	9,821	2,642½	159	169,302½	2,821	14	2	Increase in 1914
Decrease in 1914										Decrease in 1914.

APPENDIX E.—No. II.

FISH EXPORTED.—RETURN showing the Total Quantity of Fish Exported to England, Ireland, the Continent, and Places out of Europe during the Year 1914.

I.—HERRINGS.						
DESCRIPTION OF FISH.	WHERE SENT.					
	Eng-land.	Ire-land.	The Continent.	Places out of Europe.	Total 1914.	Total 1913.
SCOTTISH CURED HERRINGS.						
Branded :—	Barrels.	Barrels.	Barrels.	Barrels.	Barrels.	Barrels.
La. Full . . . .	..	..	6,182	..	6,182	33,721
Full . . . . .	..	..	20,873	..	20,873	95,318
Mat. Full . . . .	..	..	4,423	..	4,423	36,662
Filling . . . . .	..	..	5,125	..	5,125	4,648
Mattie . . . . .	..	..	27,280	..	27,280	46,791
La. Spent . . . .	..	..	188	..	188	2,131
Spent . . . . .	..	..	24	..	24	207
Total Branded . . .	..	..	64,095	..	64,095	219,478
Unbranded	12,632	5,069	860,045	115,347	993,093	1,165,845
Total Number of Barrels of Cured Herrings exported	12,632	5,069	924,140	115,347	1,057,188	1,385,323
Herrings Sprinkled or Iced . . . .	..	..	37,657	..	37,657	25,614
Grand Totals for 1914 . .	12,632	5,069	961,797	115,347	1,094,845	1,410,937
Grand Totals for 1913 . .	4,378	2,638	1,299,876	104,045	1,410,937	..
Increase in 1914	8,254	2,431	..	11,302	..	..
Decrease in 1914 . . . .	..	..	338,079	..	316,092	..

NOTE.—In addition to the above, 8,216 barrels of Irish herrings were shipped to America *via* Glasgow.

II.—OTHER KINDS.						
Cod, Ling, &c., dried, cwts.	..	12,130	89,818	50,046	151,994	183,775
Do. pickled, brls.	226	..	107	..	333	361
Mackerel, " "	..	..	1,800	2,218	4,018	2,621
Sprats, " "	..	..	1,548	..	1,548	526

NOTE.—In addition to the above, 6,520 cwts. of monks (headed and gutted), valued at £3,260, were exported (to the Continent) in a fresh state; and 67,414 cases of preserved fish (64,691 to America, 2,645 to Australia, and 78 to Ireland).

APPENDIX E.—No. III.

DESTINATION OF EXPORTS.—(1) STATEMENT showing the Ports or Places to which the Herrings exported to the Continent were shipped.

DESTINATION.	From East Coast.	From Orkney & Shetland.	From West Coast.	Total 1914.	Total 1913.
	Barrels.	Barrels.	Barrels.	Barrels.	Barrels.
GERMANY :—					
Hamburg . . .	90,081 $\frac{1}{2}$	60,702 $\frac{1}{2}$	..	150,784	195,572
Stettin . . .	68,079 $\frac{1}{2}$	41,423	..	109,502 $\frac{1}{2}$	263,133
Königsberg . .	23,396	38,022 $\frac{1}{2}$	..	61,418 $\frac{1}{2}$	140,001
Danzig . . .	17,818	13,800	..	31,618	73,995
Total . . .	199,375	153,948	..	353,323	672,701
RUSSIA :—					
St. Petersburg .	93,752 $\frac{1}{2}$	101,245	24,454 $\frac{1}{2}$	219,452	275,549
Libau . . .	50,448 $\frac{1}{2}$	56,874	15,709 $\frac{1}{2}$	123,032	220,872
Archangel . . .	58,436	26,963	..	85,399	..
Riga . . .	34,521	8,160	1,062 $\frac{1}{2}$	43,743 $\frac{1}{2}$	104,484
Wyborg . . .	16,213	..	..	16,213	4,950
Revel . . .	3,600	..	..	3,600	8,467
Port Baltic . .	1,600	..	..	1,600	3,816
Helsingfors . .	..	..	..	..	1,542
Total . . .	258,571	193,242	41,226 $\frac{1}{2}$	493,039 $\frac{1}{2}$	619,680
HOLLAND :—					
Rotterdam . .	8,814	..	3,165	11,979	5,977
Harlingen . . .	15	..	..	15	..
Total . . .	8,829	..	3,165	11,994	5,977
BELGIUM :—					
Antwerp . . .	264 $\frac{1}{2}$	..	..	264 $\frac{1}{2}$	79
Ghent . . .	420	..	..	420	..
Total . . .	684 $\frac{1}{2}$	..	..	684 $\frac{1}{2}$	79
NORWAY . . .	66,305 $\frac{1}{2}$	22,716 $\frac{1}{2}$	..	89,022	1,439
SWEDEN . . .	13,490	..	..	13,490	
DENMARK . . .	244	..	..	244	
Total . . .	80,039 $\frac{1}{2}$	22,716 $\frac{1}{2}$	..	102,756	1,439
Grand Totals for 1914	547,499	369,906 $\frac{1}{2}$	44,391 $\frac{1}{2}$	961,797	1,299,876
Grand Totals for 1913	591,289	396,090	112,497	1,299,876	..
Increase in 1914. .	..	..	..	..	..
Decrease in 1914 .	343,790	26,183 $\frac{1}{2}$	68,105 $\frac{1}{2}$	338,079	..

APPENDIX E.—No. III.—*continued.*

DESTINATION OF EXPORTS—(2) RETURN showing, by Districts, the Direct Exports of Cured Herrings to Germany and Russia respectively, during 1914.

Districts.	Germany.	Russia.
East Coast.	Barrels.	Barrels.
Eyemouth	2,280	..
Leith	114,785½	29,408½
Anstruther . . . . .	..	..
Montrose	3,581½	2,685
Stonehaven . . . . .	..	..
Aberdeen	8,174	2,306
Peterhead	18,936	87,101½
Fraserburgh	18,769	93,049
Banff	2,941	..
Buckie	1,734½	..
Findhorn . . . . .	..	..
Cromarty . . . . .	..	..
Helmsdale . . . . .	..	..
Lybster . . . . .	..	..
Wick	28,173½	44,021
Total, East Coast	199,375	258,571
Orkney and Shetland.		
Orkney	29,759	40,006
Shetland	124,189	153,236
Total, Orkney and Shetland	153,948	193,242
West Coast.		
Stornoway . . . . .	..	36,095
Barra . . . . .	..	5,131½
Loch Broom . . . . .	..	..
Loch Carron and Skye . . . . .	..	..
Fort William . . . . .	..	..
Campbeltown . . . . .	..	..
Inveraray . . . . .	..	..
Rothesay . . . . .	..	..
Greenock . . . . .	..	..
Ballantrae . . . . .	..	..
Total, West Coast . . . . .	..	41,226½
Grand Total for 1914	353,323	493,039½
Grand Total for 1913	672,701	619,680
Increase in 1914 . . . . .	..	..
Decrease in 1914	319,378	126,640½

APPENDIX E.—No. IV.

VALUE OF CURED FISH.—RETURN showing the estimated Value of Cured Herrings, Branded and Unbranded, as well as of Cured Cod, &c., during the Year 1914.

DISTRICTS.	VALUE OF CURED HERRINGS BRANDED.							
	La. Full.	Full.	Mat. Full.	Fill- ing.	Mat- tie.	La. Spent.	Spent.	Total Branded.
EAST COAST.	£	£	£	£	£	£	£	£
Eyemouth . . .	..	60	53	51	626	..	..	790
Leith . . .	..	..	..	..	..	..	..	..
Anstruther . . .	..	..	..	..	..	..	..	..
Montrose . . .	20	227	109	178	2,470	..	..	3,004
Stonehaven . . .	..	..	..	..	..	..	..	..
Aberdeen . . .	..	330	35	1	654	..	..	1,020
Peterhead . . .	2,883	5,579	896	1,662	23,792	214	..	35,026
Fraserburgh . . .	3,898	10,032	2,060	5,434	15,554	14	..	36,992
Banff . . .	..	..	..	..	..	..	..	..
Buckie . . .	19	266	378	..	144	..	..	807
Findhorn . . .	..	309	64	47	495	..	..	915
Cromarty . . .	..	..	..	..	..	..	..	..
Helmsdale . . .	..	..	..	..	..	..	..	..
Lybster . . .	..	..	..	..	..	..	..	..
Wick . . .	282	7,463	2,155	132	2,876	4	..	12,912
East Coast Totals carried down . . .	7,102	24,266	5,750	7,505	46,611	232	..	91,466
Orkney and Shetland.								
Orkney . . .	2,626	10,276	869	2,030	2,537	..	..	18,338
Shetland . . .	..	..	..	..	..	..	..	..
Orkney and Shetland Totals carried down . . .	2,626	10,276	869	2,030	2,537	..	..	18,338
WEST COAST.								
Stornoway . . .	..	..	..	..	..	..	..	..
Barra . . .	..	..	..	..	..	..	..	..
Loch Broom . . .	..	..	..	..	..	..	..	..
Loch Carron and Skye . . .	..	..	..	..	..	..	..	..
Fort William . . .	..	..	..	..	..	..	..	..
Campbeltown . . .	..	..	..	..	..	..	..	..
Inveraray . . .	..	..	..	..	..	..	..	..
Rothsay . . .	..	..	..	..	..	..	..	..
Greenock . . .	..	..	..	..	..	..	..	..
Ballantrae . . .	..	..	..	..	..	..	..	..
West Coast Totals carried down . . .	..	..	..	..	..	..	..	..
Totals brought down.								
East Coast . . .	7,102	24,266	5,750	7,505	46,611	232	..	91,466
Orkney and Shetland . . .	2,626	10,276	869	2,030	2,537	..	..	18,338
West Coast . . .	..	..	..	..	..	..	..	..
Grand Totals for 1914 . . .	9,728	34,542	6,619	9,535	49,148	232	..	109,804
Grand Totals for 1913 . . .	91,584	210,304	74,105	14,833	88,031	4,355	233	483,445
Increase in 1914 . . .	..	..	..	..	..	..	..	..
Decrease in 1914 . . .	31,856	175,762	67,486	5,298	38,883	4,123	233	373,641

APPENDIX E.—

VALUE OF CURED FISH.—RETURN showing the estimated Value
&c., during the

DISTRICTS.	VALUE OF CURED HERRINGS UNBRANDED.					
	Gutted.	Un-gutted.	Kip-pered.	Bloaters or Reds.	Tinned.	Total Un- branded.
EAST COAST.	£	£	£	£	£	£
Eyemouth	9,049	..	73,915	9,324	30,384	122,672
Leith . . . . .	..	..	14,036	2,700	..	16,736
Anstruther	2,288	..	712	728	..	3,728
Montrose	1,050	254	564	262	1,248	3,378
Stonehaven	88	..	1,144	..	..	1,232
Aberdeen	10,967	..	30,710	14,600	73,348	129,625
Peterhead	231,252	..	38,232	18	3,403	272,905
Fraserburgh	163,663	..	14,558	..	22,248	200,469
Banff	4,606	..	2,738	..	..	7,344
Buckie	6,101	..	130	..	..	6,231
Findhorn	2,420	..	..	..	..	2,420
Cromarty . . . . .	..	..	..	..	..	..
Helmsdale	36	..	..	..	..	36
Lybster . . . . .	..	..	..	16	..	16
Wick	177,814	4,824	43,772	..	..	226,410
East Coast Totals carried down	609,334	5,078	220,511	27,648	130,631	993,202
Orkney and Shetland.						
Orkney	153,184	..	720	..	..	153,904
Shetland	412,914	275	5,954	..	..	419,143
Orkney and Shetland Totals carried down	566,098	275	6,674	..	..	573,047
WEST COAST.						
Stornoway	138,967	5,627	134,384	..	..	278,978
Barra	46,346	..	..	..	..	46,346
Loch Broom	6,259	..	..	..	..	6,259
Loch Carron and Skye	6,293	..	812	..	..	7,105
Fort William	11,286	..	8,413	..	..	19,699
Campbeltown	464	..	179	..	..	643
Inveraray . . . . .	..	..	..	..	..	..
Rothsay . . . . .	..	..	975	..	..	975
Greenock	8,152	..	37,655	361	..	46,168
Ballantrae . . . . .	..	..	156	..	..	156
West Coast Totals carried down	217,767	5,627	182,574	361	..	406,329
Totals brought down.						
East Coast	609,334	5,078	220,511	27,648	130,631	993,202
Orkney and Shetland	566,098	275	6,674	..	..	573,047
West Coast	217,767	5,627	182,574	361	..	406,329
Grand Totals for 1914	1,393,199	10,980	409,759	28,009	130,631	1,972,578
Grand Totals for 1913 . . . . .	..	..	..	..	..	2,431,266
Increase in 1914 . . . . .	..	..	..	..	..	..
Decrease in 1914 . . . . .	..	..	..	..	..	458,688

No. IV.—continued.

of Cured Herrings, Branded and Unbranded, as well as of Cured Cod,
Year 1914.

Grand Total Value of Cured Herrings.	VALUE OF CURED FISH OTHER THAN HERRINGS.					Grand Total Value of Cured Fish.
	Dried.	Pickled.	Tinned.	Smoked	Total.	
£	£	£	£	£	£	£
123,462	..	..	..	4,141	4,141	127,603
16,736	..	1,400	..	2,250	3,650	20,386
3,728	978	..	..	225	1,203	4,931
6,382	..	..	164	..	164	6,546
1,232	..	..	..	1,250	1,250	2,482
130,645	309,532	450	1,088	412,552	723,622	854,267
307,931	1,035	..	250	2,219	3,504	311,435
237,461	240	..	435	2,760	3,435	240,896
7,344	..	..	..	4,052	4,052	11,396
7,038	737	806	..	190	1,783	8,821
3,335	380	2,760	..	296	3,436	6,771
..	12	..	..	365	377	377
36	..	..	..	250	250	286
16	..	..	..	63	63	79
239,322	1,657	466	..	759	2,873	242,195
1,084,668	314,621	5,882	1,937	431,363	753,803	1,833,471
172,242	4,467	..	..	..	4,467	176,709
419,143	8,110	2,970	..	400	11,480	430,623
591,385	12,577	2,970	..	400	15,947	607,332
278,973	6,101	950	..	794	7,845	286,823
46,346	162	288	..	..	450	46,796
6,259	2,266	28	..	..	2,294	8,553
7,105	..	..	..	..	..	7,105
19,699	..	377	..	..	377	20,076
643	197	..	..	..	197	840
..
975	..	..	..	..	..	975
46,168	258	..	..	..	258	46,426
156	..	..	..	..	..	156
406,329	8,984	1,643	..	794	11,421	417,750
1,084,668	314,621	5,882	1,937	431,363	753,803	1,838,471
591,385	12,577	2,970	..	400	15,947	607,332
406,329	8,984	1,643	..	794	11,421	417,750
2,082,382	336,182	10,495	1,937	432,557	781,171	2,863,553
2,914,711	364,952	6,915	12,834	640,730	1,025,431	3,940,142
..	..	3,580	..	..	..	..
832,329	28,770	..	10,897	208,173	244,260	1,076,589

APPENDIX E.—

RETURN showing, under each of the Crown Brands, the Number of Barrels of Districts for Inspection with a view to Branding if in accordance with Brand was Refused, and the Principal Grounds of Refusal.

DISTRICTS.	LA. FULL BRAND.			FULL BRAND.			MAT. FULL BRAND.			FILLING BRAND.		
	Barrels pre- sented.	Barrels refused Brand.		Barrels pre- sented.	Barrels refused Brand.		Barrels pre- sented.	Barrels refused Brand.		Barrels pre- sented.	Barrels refused Brand.	
		Num- ber.	Per cent.		Num- ber.	Per cent.		Num- ber.	Per cent.		Num- ber.	Per cent.
Eyemouth . . .	..	..	..	39	..	..	38	..	..	37½	..	..
Montrose . . .	11½	..	..	143	..	..	73	..	..	119	..	..
Aberdeen . . .	..	..	..	189	..	..	26½	..	..	1	..	..
Peterhead . . .	1,519½	..	..	3,192	4	0·13	616	19	3·08	1,429	321	22·46
Fraserburgh . .	2,053½	2	0·10	5,578	4½	0·08	1,354½	67	4·95	4,020	138½	3·45
Buckie . . .	11	..	..	161	..	..	264	12	4·55	..	..	..
Findhorn . . .	..	..	..	181½	..	..	93½	51	54·55	57	25½	44·74
Wick . . .	148½	..	..	4,221	74½	1·76	1,244	47	3·78	106	18	16·98
Orkney . . .	1,419½	..	..	5,870	1	·02	777	234	30·12	1,624	271	16·69
Shetland . . .	186	..	..	..	..	..	..	..	..	..	..	..
Totals for 1914	5,349½	2	0·04	19,574½	84	0·43	4,486½	430	9·58	7,393½	774	10·47
Totals for 1913	43,038½	460½	1·07	105,134	2,584½	2·46	40,621½	1,280½	3·15	8,741½	1,018	11·65
Increase in 1914	..	..	..	..	..	..	..	..	6·43	..	..	..
Decrease in 1914	37,689	458½	1·03	85,559½	2,500½	2·03	36,135	850½	..	1,348	244	1·18

No. V.

Cured Herrings, presented during 1914, to the Officers of the various Fishery the Board's Regulations, the Number and Percentage in respect of which the

MATTIE BRAND.			LA. SPENT BRAND.			SPENT BRAND.			TOTAL.			Principal Grounds of Refusal.
Barrels presented.	Barrels refused Brand.		Barrels presented.	Barrels refused Brand.		Barrels presented.	Barrels refused Brand.		Barrels presented.	Barrels refused Brand.		
	Num-ber.	Per cent.		Num-ber.	Per cent.		Num-ber.	Per cent.		Num-ber.	Per cent.	
555½	62	11·16	..	..	..	..	..	..	670	62	9·25	Oily and torn bellies.
1,769½	4	0·23	..	..	..	..	..	..	2,116	4	0·19	Inferior quality.
1,160½	507	43·69	..	..	..	..	..	..	1,377	507	36·82	Inferior quality and oily fish.
23,529½	2,840½	12·07	171½	..	..	..	..	..	*30,457½	3,184½	10·46	Soft and torn fish.
14,651½	1,134½	7·74	9	..	..	..	..	..	27,666½	1,346½	4·87	Inferior quality and defective selection.
122	7	5·74	..	..	..	..	..	..	558	19	3·41	Defective selection.
448½	18	4·01	..	..	..	..	..	..	780½	94½	12·11	Defective selection and oily fish.
2,405½	275	11·43	8	5	62·5	..	..	..	8,133	419½	5·16	Inferior quality and defective selection.
2,250½	438½	19·48	..	..	..	..	..	..	11,941	944½	7·91	Defective selection, light salting, and inferior quality.
..	..	..	..	..	..	..	..	..	186	..	..	..
46,893	5,286½	11·27	188½	5	2·65	..	..	..	83,885½	6,581½	7·85	
55,828½	4,401	7·88	2,908	82	2·82	159	..	..	256,431	9,826½	3·83	
..	885½	3·39	..	..	..	..	..	..	..	..	4·02	
8,935½	..	..	2,719½	77	0·17	159	..	..	172,545½	3,245	..	

* Includes 2 barrels La. Fulls used in filling up slackly filled barrels.

APPENDIX F.—

PERSONS EMPLOYED.—RETURN showing the Total Number of
branches of the Sea Fisheries

No.	DISTRICTS.	Fishermen and Boys (resident and non-resident).	Fishmongers.	Hawkers of Herring and other Fish.	Fishcureurs, and Dealers in Fresh Fish.	Coopers.	Gutters, Packers, Kipperers, etc.	Clerks.	Carters and Labourers.	Persons gathering Bait and Baiting Lines.
EAST COAST.										
1	Eyemouth . . .	565	1	8	16	51	384	1	53	30
2	Leith . . .	1,864	640	500	9	62	144	59	78	40
3	Anstruther . . .	1,676	18	42	18	52	465	3	34	97
4	Montrose . . .	856	156	297	12	39	227	19	72	360
5	Stonehaven . . .	170	4	33	6	8	63	1	9	45
6	Aberdeen . . .	3,562*	309	307	174	395	3,030	368	2,210	30
7	Peterhead . . .	2,026	11	87	107	598	1,626	63	299	36
8	Fraserburgh . . .	2,198	4	115	86	56	1,425	75	418	42
9	Banff . . .	1,457	1	103	19	50	432	1	22	43
10	Buckie . . .	3,292	2	70	12	108	1,56	65	20	..
11	Findhorn . . .	1,756	18	100	15	67	548	6	29	..
12	Cromarty . . .	614	..	40	3	..	240	..	9	..
13	Helmsdale . . .	360	..	84	8	24	250	2	6	40
14	Lybster . . .	122	..	4	1	12	90	..	3	..
15	Wick . . .	1,294	12	55	55	491	965	32	210	..
East Coast Totals carried down . . .		21,812	1,176	1,845	541	2,517	10,945	695	3,472	763
Orkney and Shetland.										
16	Orkney . . .	963	10	10	8	29	218	4	128	20
17	Shetland . . .	5,418	..	10	40	175	1,159	52	474	35
Orkney and Shetland Totals carried down		6,381	10	20	48	204	1,377	56	602	55
WEST COAST.										
18	Stornoway . . .	4,074	26	46	34	90	2,720	10	150	..
19	Barra . . .	990	..	..	7	2	519	..	48	220
20	Loch Broom . . .	971	2	18	17	3	209	2	34	24
21	Loch Carron and Skye.	947	..	..	14	8	96	..	6	244
22	Fort-William . . .	443	20	24	6	3	24	1	3	51
23	Campbeltown . . .	640	4	15	22	1	35	1	6	20
24	Inveraray . . .	435	4	6	8	..	..	..	4	16
25	Rothsay . . .	99	45	21	4	..	7	3	6	..
26	Greenock . . .	260	646	1,015	34	30	136	92	256	52
27	Ballantrae . . .	542	54	119	3	..	..	19	61	34
West Coast Totals carried down . . .		9,401	801	1,264	149	137	3,746	128	574	661
Totals brought down.										
East Coast . . .		21,812	1,176	1,845	541	2,517	10,945	695	3,472	763
Orkney and Shetland . . .		6,381	10	20	48	204	1,377	56	602	55
West Coast . . .		9,401	801	1,264	149	137	3,746	128	574	661
Grand Totals for 1914		37,594	1,987	3,129	738	2,858	16,068	879	4,648	1,479
Grand Totals for 1913		38,262	1,993	3,116	740	2,662	16,269	898	4,927	1,449
Increase in 1914 . . .		..	..	13	..	196	..	..	..	30
Decrease in 1914 . . .		668	6	..	2	..	201	19	279	..

* Exclusive of 416 non-resident fishermen on foreign vessels.

No. I.

Persons employed in each District in connection with the various during the Year 1914.

Boxmakers.	Boat Builders.	Basketmakers.	Persons making and mending Nets.	Persons manufacturing Barrel Staves.	Persons employed on board Vessels Curing, Exporting, and Carrying Herring and other Fish.		Persons employed on board Vessels Importing Salt, Stave Wood, and Hoops.		Other Occupations.	Total Persons employed.	DISTRICTS.
					British.	Foreign.	British.	Foreign.			
EAST COAST.											
..	11	..	17	..	16	9	43	8	..	1,213	Eyemouth.
30	80	20	400	10	920	74	40	29	50	5,049	Leith.
..	17	..	365	12	9	..	17	50	42	2,917	Anstruther.
6	57	5	16	40	17	11	4	21	48	2,263	Montrose.
..	1	..	140	..	..	..	..	..	..	480	Stonehaven.
140	1,950	22	306	40	549	104	412	367	590	14,865	Aberdeen.
16	35	1	180	138	112	445	140	317	..	6,237	Peterhead.
12	65	2	86	28	416	492	205	239	..	6,468	Fraserburgh.
..	83	..	..	..	10	12	9	..	..	2,242	Banff.
..	117	..	133	4	8	7	6	..	..	4,900	Buckie.
..	46	..	100	..	34	..	..	..	..	2,719	Findhorn.
..	5	..	6	3	3	..	..	..	..	923	Cromarty.
..	1	..	6	1	33	..	36	..	..	851	Helmsdale.
..	1	..	..	..	..	..	..	..	..	233	Lybster.
15	16	5	35	10	334	587	89	205	..	4,410	Wick.
219	2,485	55	1,790	286	2,461	1,741	1,001	1,236	730	55,770	East Coast Totals carried down.
Orkney and Shetland											
..	23	..	..	..	119	435	58	45	40	2,110	Orkney.
..	40	..	45	8	524	907	249	220	25	9,381	Shetland
..	63	..	45	8	643	1,342	307	265	65	11,491	Orkney and Shetland Totals carried down.
WEST COAST.											
2	19	..	..	16	760	70	124	72	14	8,227	Stornoway.
..	7	..	..	..	50	29	48	..	..	1,920	Barra.
..	7	..	3	..	43	..	4	..	..	1,337	Loch Broom.
..	17	14	..	..	88	..	4	..	..	1,438	Loch Carron and Skye
..	5	..	..	..	88	..	17	..	..	685	Fort-William.
..	5	..	80	..	55	..	4	..	..	888	Campbeltown.
..	6	..	..	..	20	..	2	..	..	501	Inveraray.
..	14	..	..	..	18	..	2	..	..	219	Rothsay.
10	20	1	500	..	686	..	31	..	24	3,793	Greenock.
..	18	..	..	..	..	..	..	..	..	850	Ballantrae.
12	118	15	583	16	1,808	99	236	72	38	19,858	West Coast Totals carried down.
Totals brought down.											
219	2,485	55	1,790	286	2,461	1,741	1,001	1,236	730	55,770	East Coast.
..	63	..	45	8	643	1,342	307	265	65	11,491	Orkney and Shetland.
12	118	15	583	16	1,808	99	236	72	38	19,858	West Coast.
231	2,666	70	2,418	310	4,912	3,182	1,544	1,573	833	87,119	Grand Totals for 1914.
215	2,403	68	2,302	308	6,298	4,508	1,878	1,630	784	90,710	Grand Totals for 1913.
16	263	2	116	2	..	..	..	..	49	..	Increase in 1914.
..	..	..	..	..	1,386	1,326	334	57	..	3,591	Decrease in 1914.

APPENDIX F.—

TRANSPORT TRADE.—RETURN showing the Tonnage of Shipping, and the

		TONNAGE							
No.	DISTRICTS.	Importing Stave Wood and Hoops for the Fisheries.				Importing Salt for the Fisheries.			
		British.		Foreign.		British.		Foreign.	
		Tons.	Men.	Tons.	Men.	Tons.	Men.	Tons.	Men.
EAST COAST.									
1	Eyemouth			194	8	576	43	..	..
2	Leith	320	15	710	29	600	25	..	..
3	Anstruther . . . . .	..	..	299	20	176	17	745	30
4	Montrose	100	4	..	..	..	..	411	21
5	Stonehaven								
6	Aberdeen	4,060	162	5,210	208	6,236	250	3,980	159
7	Peterhead	610	16	6,456	205	3,136	124	4,552	112
8	Fraserburgh	1,861	63	3,459	135	4,238	142	3,442	104
9	Banff . . . . .	..	..	..	..	219	9	..	..
10	Buckie . . . . .	..	..	..	..	140	6	..	..
11	Findhorn . . . . .	..	..	..	..	..	..	..	..
12	Cromarty . . . . .	..	..	..	..	..	..	..	..
13	Helmsdale	220	27	..	..	183	9	..	..
14	Lybster . . . . .	..	..	..	..	..	..	..	..
15	Wick	580	24	3,561	122	1,089	65	2,426	83
East Coast Totals carried down		7,751	311	19,889	727	16,593	690	15,556	509
Orkney and Shetland.									
16	Orkney . . . . .				..	2,590	58	4,050	45
17	Shetland	3,060	122	2,805	112	3,176	127	2,717	108
Orkney and Shetland Totals carried down		3,060	122	2,805	112	5,766	185	6,767	153
WEST COAST.									
18	Stornoway	1,171	47	345	14	1,928	77	1,450	58
19	Barra	30	2	..	..	1,046	46	..	..
20	Loch Broom . . . . .	..	..	..	..	90	4	..	..
21	Loch Carron and Skye . . . . .	..	..	..	..	100	4	..	..
22	Fort-William . . . . .	..	..	..	..	440	17	..	..
23	Campbeltown . . . . .	..	..	..	..	100	4	..	..
24	Inveraray . . . . .	..	..	..	..	40	2	..	..
25	Rothsay . . . . .	..	..	..	..	40	2	..	..
26	Greenock . . . . .	..	..	..	..	765	31	..	..
27	Ballantrae . . . . .	..	..	..	..	..	..	..	..
West Coast Totals carried down		1,201	49	345	14	4,549	187	1,450	58
Totals brought down.									
East Coast		7,751	311	19,889	727	16,593	690	15,556	509
Orkney and Shetland		3,060	122	2,805	112	5,766	185	6,767	153
West Coast		1,201	49	345	14	4,549	187	1,450	58
Grand Totals for 1914		12,012	482	23,039	853	26,908	1062	23,773	720
Grand Totals for 1913		17,977	716	25,980	1025	27,760	1162	23,008	605
Increase in 1914 . . . . .		..	..	..	..	..	..	765	115
Decrease in 1914		5,965	234	2,941	172	852	100	..	..

No. II.

Number of Seamen engaged in transporting Fish and Curing Material in the Year 1914.

AND MEN.

Carrying Herrings or Cod Fish Coastwise.				Exporting Herrings or Cod Fish.				Total.				GRAND TOTAL.	
British.		Foreign.		British.		Foreign.		British.		Foreign.		Tons, British and Foreign.	Men, British and Foreign.
Tons.	Men.	Tons.	Men.	Tons.	Men.	Tons.	Men.	Tons.	Men.	Tons.	Men.		
174	12	..	..	98	4	205	9	848	59	399	17	1,247	76
500	20	..	..	22,500	900	1,851	74	23,920	960	2,561	103	26,481	1,063
107	9	..	..	..	..	..	..	283	26	1,044	50	1,327	76
50	2	..	..	358	15	268	11	508	21	679	32	1,187	53
7,240	290	2,250	90	6,451	259	355	14	23,987	961	11,795	471	35,782	1,432
2,789	112	430	12	..	..	13,326	433	6,535	252	24,764	762	31,299	1,014
5,820	360	..	..	1,392	56	12,314	492	13,311	621	19,215	731	32,526	1,352
250	10	..	..	..	..	294	12	469	19	294	12	763	31
200	8	..	..	..	..	173	7	340	14	173	7	513	21
960	34	..	..	..	..	..	..	960	34	..	..	960	34
30	3	..	..	..	..	..	..	30	3	..	..	30	3
623	33	..	..	..	..	..	..	1,026	69	..	..	1,026	69
5,246	334	600	27	..	..	10,137	560	6,915	423	16,724	792	23,639	1,215
23,989	1227	3,280	129	30,799	1234	38,923	1612	79,132	3462	77,648	2977	156,780	6,439
2,900	101	..	..	469	18	8,815	435	5,959	177	12,865	480	18,824	657
7,128	285	..	..	5,969	239	22,685	907	19,333	773	28,207	1127	47,540	1,900
10,028	386	..	..	6,438	257	31,500	1342	25,292	950	41,072	1607	66,364	2,557
17,034	681	..	..	1,831	79	1,783	70	21,964	884	3,578	142	25,542	1,026
1,256	50	..	..	..	..	470	29	2,332	98	470	29	2,802	127
527	43	..	..	..	..	..	..	617	47	..	..	617	47
2,125	85	..	..	..	..	..	..	2,225	89	..	..	2,225	89
2,210	88	..	..	..	..	..	..	2,650	105	..	..	2,650	105
1,375	55	..	..	..	..	..	..	1,475	59	..	..	1,475	59
510	20	..	..	..	..	..	..	550	22	..	..	550	22
450	18	..	..	..	..	..	..	490	20	..	..	490	20
350	14	..	..	16,806	672	..	..	17,921	717	..	..	17,921	717
..
25,837	1054	..	..	18,637	751	2,253	99	50,224	2041	4,048	171	54,272	2,212
23,989	1227	3,280	129	30,799	1234	38,923	1612	79,132	3462	77,648	2977	156,780	6,439
10,028	386	..	..	6,438	257	31,500	1342	25,292	950	41,072	1607	66,364	2,557
25,837	1054	..	..	18,637	751	2,253	99	50,224	2041	4,048	171	54,272	2,212
59,854	2667	3,280	129	55,874	2242	72,676	3053	154,648	6453	122,768	4755	277,416	11,208
71,536	3427	12,498	505	70,423	2842	92,704	4003	187,696	8147	154,190	6138	341,886	14,285
11,682	760	9,218	376	14,549	600	20,028	950	33,048	1694	31,422	1383	64,470	3,077

APPENDIX F.—No. III.

CASUALTIES:—RETURN by Districts of the Casualties sustained in connection with the Sea Fisheries of Scotland, in the Year 1914.

No.	DISTRICTS.	Lives Lost.							Boats totally Wrecked and Value thereof.		Boats Damaged and Amount of Damage.		Loss on Boats and other Fishing Material Lost or Damaged.	Total Loss on Boats, Nets, &c., Lost or Damaged.	No.		
		Through Foundering at Sea.	In taking Harbours.	In Collisions.	Washed Overboard.	Falling Overboard.	Knocked Overboard or killed by Sail, &c.	Total.	Number.	Value.	Number.	Amount of Damage.					
EAST COAST.																	
1	Eyemouth .	.	.	.	.	1	.	1	..	3	160	160	1,945	2,105	1
2	Leith .	.	.	.	1	1	.	.	..	25	1,000	1,000	6,000	7,000	2
3	Anstruther .	.	.	.	.	.	.	.	660	32	716	1,376	1,990	3,366	3
4	Montrose .	.	.	.	.	.	.	.	440	21	286	726	1,690	2,416	4
5	Stonehaven .	.	.	.	.	.	.	.	..	2	25	25	176	201	5
6	Aberdeen .	.	.	.	1	.	1	2	6,200	381	13,388	19,588	57,791	77,379	6
7	Peterhead .	.	.	.	.	.	.	2	600	18	2,400	3,000	5,057	8,057	7
8	Fraserburgh .	.	.	.	.	.	1	1	..	14	360	360	2,850	3,210	8
9	Banff .	.	.	.	.	.	.	.	7,300	..	..	..	1,135	1,135	9
10	Buckie .	.	.	.	.	2	.	2	800	10	800	8,100	2,160	10,260	10
11	Findhorn .	.	.	.	.	.	.	4	700	3	800	1,500	1,200	2,700	11
12	Cromarty .	.	.	.	.	.	.	.	..	8	37	37	255	292	12
13	Helmsdale .	.	.	.	.	1	.	.	..	3	90	90	170	260	13
14	Lybster .	.	.	.	.	.	.	.	..	..	..	..	16	16	14
15	Wick .	2	..	..	..	..	1	3	70	12	300	370	2,200	2,570	15
East Coast Totals carried down .		2	..	2	2	5	3	14	17	15,970	532	20,362	36,332	84,635	120,967		

	Orkney and Shetland.	16 17	18 19 20 21 22 23 24 25 26 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Orkney	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Shetland	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Orkney and Shetland Totals carried down				2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
WEST COAST.																				
Stornoway	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Barra	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Loch Broom	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Loch Carron and Skye	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fort-William	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Campbeltown	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Inveraray	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rothesay	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Greenock	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ballantrae	.	.	.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
West Coast Totals carried down				8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Totals brought down.																				
East Coast	.	.	.	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Orkney and Shetland	.	.	.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
West Coast	.	.	.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Grand Totals for 1914	.	.	.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
Grand Totals for 1913	.	.	.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
Increase in 1914	.	.	.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Decrease in 1914
				8	226	4,874	32	16,215	15,970	532	20,362	36,332	84,635	120,967	124,147	127,012	13,236	2,865		
			
				16,101	11,227	4,874	8	21,089	240	58	272	512	2,228	2,740	2,740	2,740	2,228	2,740	2,740	2,740

BOAT-BUILDING.—RETURN for the Year 1914, showing the Number and Value

FISHING BOATS.															
No.	DISTRICTS.	Propelled by Steam.		Propelled by Sails or Motor.										Total.	
		No.	Value.	1st Class.		2nd Class.		3rd Class.		Total.		No.	Value.		
				45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.								
										No.	Value.			No.	Value.
	EAST COAST.		£		£				£		£		£		£
1	Eyemouth . . . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.
2	Leith . . . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	Anstruther . . . . .	.	.	.	2	720	6	1,160	1	12	9	1,832	9	1,832	.
4	Montrose	4	14,000	.	.	.	.	.	.	.	.	.	.	4	14,000
5	Stonehaven . . . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	Aberdeen	9	32,400	.	.	.	.	.	.	.	.	.	.	9	32,400
7	Peterhead	1	2,700	.	.	.	1	42	1	15	2	57	3	2,757	.
8	Fraserburgh	12	34,200	.	.	1	250	6	300	21	315	28	865	40	35,065
9	Banff	17	46,750	.	.	.	.	3	319	6	99	9	418	26	47,168
10	Buckie	14	36,400	.	.	.	.	.	.	.	.	.	.	14	36,400
11	Findhorn	6	17,000	.	.	1	150	2	200	.	.	3	350	9	17,350
12	Cromarty . . . . .	.	.	.	.	.	.	1	80	.	.	1	80	1	80
13	Helmsdale . . . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.
14	Lybster . . . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.
15	Wick . . . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	East Coast Totals carried down	63	183,450	.	.	4	1,120	19	2,041	29	441	52	3,602	115	187,052
	Orkney and Shetland.														
16	Orkney . . . . .	.	.	.	.	.	.	.	.	16	136	16	136	16	136
17	Shetland . . . . .	.	.	.	.	.	.	1	60	20	145	21	205	21	205
	Orkney and Shetland Totals carried down . . . . .	.	.	.	.	.	.	1	60	36	281	37	341	37	341
	WEST COAST.														
18	Stornoway . . . . .	.	.	.	.	.	1	30	4	105	5	135	5	135	.
19	Barra . . . . .	.	.	.	.	.	4	55	3	27	7	82	7	82	.
20	Loch Broom . . . . .	.	.	.	.	.	.	.	4	50	4	50	4	50	.
21	Loch Carron and Skye . . . . .	.	.	.	.	.	2	40	2	24	4	64	4	64	.
22	Fort-William . . . . .	.	.	.	.	.	1	120	.	.	1	120	1	120	.
23	Campbeltown . . . . .	.	.	.	1	350	.	.	.	.	1	350	1	350	.
24	Inveraray . . . . .	.	.	.	1	340	2	440	.	.	3	780	3	780	.
25	Rothsay . . . . .	.	.	.	4	1,400	2	600	.	.	6	2,000	6	2,000	.
26	Greenock . . . . .	.	.	.	.	.	4	1,250	.	.	4	1,250	4	1,250	.
27	Ballantrae . . . . .	.	.	.	.	.	3	575	2	35	5	610	5	610	.
	West Coast Totals carried down . . . . .	.	.	.	6	2,090	19	3,110	15	241	40	5,441	40	5,441	.
	Totals brought down														
	East Coast	63	183,450	.	.	4	1,120	19	2,041	29	441	52	3,602	115	187,052
	Orkney and Shetland . . . . .	.	.	.	.	.	1	60	36	281	37	341	37	341	.
	West Coast . . . . .	.	.	.	6	2,090	19	3,110	15	241	40	5,441	40	5,441	.
	Grand Totals for 1914	63	183,450	.	.	10	3,210	39	5,211	80	963	129	9,384	192	192,834
	Grand Totals for 1913	43	118,430	2	3,400	20	6,420	44	4,911	63	750	129	15,481	172	133,911
	Increase in 1914	20	65,020	.	.	.	.	.	300	17	213	.	.	20	58,923
	Decrease in 1914 . . . . .	.	.	2	3,400	10	3,210	5	.	.	.	.	6,097	.	.

No. I.

of Fishing Vessels constructed within the Boundaries of each District in Scotland.

TRAWLERS.						TOTAL FISHING BOATS AND TRAWLERS.						REMARKS.	No.
Propelled by Steam.		Propelled by Sails or Motor.		Total.		Propelled by Steam.		Propelled by Sails or Motor.		Total.			
No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.		
£	£	£	£	£	£	£	£	£	£	£	£		
5	32,500	.	.	5	32,500	5	32,500	.	.	5	32,500	1	
.	9	1,832	9	1,832	2	
4	34,000	.	.	4	34,000	8	48,000	.	.	8	48,000	3	
45	315,000	.	.	45	315,000	54	347,400	.	.	54	347,400	4	
.	1	2,700	2	57	3	2,757	5	
.	12	34,200	28	865	40	35,065	6	
.	17	46,750	9	418	26	47,168	7	
.	14	36,400	.	.	14	36,400	8	
.	6	17,000	3	350	9	17,350	9	
.	1	80	1	80	10	
.	11	
.	12	
.	13	
.	14	
.	15	
54	381,500	.	.	54	381,500	117	564,950	52	3,602	169	568,552		
.		
.	16	136	16	136	16	
.	21	205	21	205	17	
.	37	341	37	341		
.		
.	5	135	5	135	18	
.	7	82	7	82	19	
.	4	50	4	50	20	
.	4	64	4	64	21	
.	1	120	1	120	22	
.	1	350	1	350	23	
.	3	780	3	780	24	
.	6	2,000	6	2,000	25	
.	4	1,250	4	1,250	26	
.	5	610	5	610	27	
.	40	5,441	40	5,441		
.		
54	381,500	.	.	54	381,500	117	564,950	52	3,602	169	568,552		
.	37	341	37	341		
.	40	5,441	40	5,441		
54	381,500	.	.	54	381,500	117	564,950	129	9,384	246	574,334		
31	201,500	.	.	31	201,500	74	319,930	129	15,481	203	335,411		
23	180,000	.	.	23	180,000	43	245,020	.	.	43	238,923		
.	6,097	.	.		

APPENDIX G.—No. II.

BARREL MAKING:—RETURN for the Year 1914 of the Number of Barrels and the Number of Half-Barrels constructed within the Boundaries of each District in Scotland, and of the Number of Quarter-Cran Basket Measures Branded.

No.	DISTRICTS.	Number of Barrels and Half-Barrels Constructed.		Number of $\frac{1}{4}$ -Cran Measures Branded.	
		Barrels.	Half-Barrels.	Boxes.	Baskets.
EAST COAST.					
1	Eyemouth	80,084	14,801	..	..
2	Leith	21,817	18,932	..	11,227
3	Anstruther	34,172	8,395	..	..
4	Montrose	18,979	5,530	..	1,335
5	Stonehaven	6,078	..	..	..
6	Aberdeen	334,209	165,895	..	13,191
7	Peterhead	449,492	165,884	..	248
8	Fraserburgh	471,234	183,612	..	1,094
9	Banff	26,552	10,536	..	..
10	Buckie	37,500	22,000	..	..
11	Findhorn	32,500	26,340	..	..
12	Cromarty . . . . .	..	..	..	..
13	Helmsdale	7,952	4,060	..	..
14	Lybster	7,222	5,572	..	..
15	Wick	226,188	116,876	..	2,946
East Coast Totals carried down . .		1,753,979	748,433	..	30,041
Orkney and Shetland.					
16	Orkney	22,500	2,650	..	..
17	Shetland	202,503	99,880	..	..
Orkney and Shetland Totals carried down		225,003	102,530	..	..
WEST COAST.					
18	Stornoway	21,332	23,980	..	..
19	Barra	531	..	..	..
20	Loch Broom . . . . .	..	..	..	..
21	Loch Carron and Skye . . . . .	..	..	..	8,253
22	Fort-William . . . . .	..	..	..	..
23	Campbeltown . . . . .	..	200	..	..
24	Inveraray . . . . .	..	..	..	..
25	Rothsay . . . . .	..	..	..	..
26	Greenock	621	7,854	..	12
27	Ballantrae . . . . .	..	..	..	..
West Coast Totals carried down . .		22,484	32,034	..	8,265
Totals brought down.					
East Coast		1,753,979	748,433	..	30,041
Orkney and Shetland		225,003	102,530	..	..
West Coast		22,484	32,034	..	8,265
Grand Totals for 1914		2,001,466	882,997	..	38,306
Grand Totals for 1913		2,057,991	971,972	..	51,426
Increase in 1914		56,525	88,975	..	13,120
Decrease in 1914 . . . . .		..	..	..	..

NOTE.—Of the above total, 1,986,630 whole and 882,797 half-barrels were constructed of fir, 854 whole barrels were constructed of larch, and 13,982 whole and 200 half-barrels of ash, elm, birch, alder, &c. All the barrels (and half-barrels) constructed were hooped partly with wood and partly with iron.

APPENDIX

REGISTRATION OF FISHING BOATS—RETURN, by Districts, of Fishing
1883, and Sea Fisheries (Scotland)

No.		DISTRICTS.	Applications to Register.				Certificates	
			First Class.	Second Class.	Third Class.	Total.	First Class.	Second Class.
EAST COAST.								
1	Eyemouth . . . . .	..	..	..	..	..	..
2	Leith . . . . .	..	..	..	..	..	..
3	Anstruther	7	1	..	8	7	1	
4	Montrose . . . . .	..	..	..	..	..	..
5	Stonehaven . . . . .	..	..	..	..	..	..
6	Aberdeen . . . . .	..	..	..	..	..	..
7	Peterhead . . . . .	..	..	..	..	..	..
8	Fraserburgh . . . . .	..	..	..	..	..	..
9	Banff . . . . .	..	3	1	4	..	3
10	Buckie . . . . .	..	..	..	..	..	..
11	Findhorn . . . . .	..	..	..	..	..	..
12	Cromarty . . . . .	..	..	..	..	..	..
13	Helmsdale	1	5	5	11	1	5	
14	Lybster . . . . .	..	..	..	..	..	..
15	Wick . . . . .	..	..	..	..	..	..
East Coast Totals carried down			8	9	6	23	8	9
Orkney and Shetland.								
16	Orkney . . . . .	..	..	..	..	..	..
17	Shetland . . . . .	..	..	..	..	..	..
Orkney and Shetland Totals carried down			..	..	..	..	..
WEST COAST.								
18	Stornoway	16	14	5	35	16	14	
19	Barra	2	7	13	22	2	7	
20	Loch Broom . . . . .	..	2	30	32	..	2
21	Loch Carron and Skye	1	14	6	21	1	14	
22	Fort-William	1	2	4	7	1	2	
23	Campbeltown	3	8	3	14	3	8	
24	Inveraray . . . . .	..	6	5	11	..	6
25	Rothsay . . . . .	..	2	..	2	..	2
26	Greenock . . . . .	..	3	3	6	..	3
27	Ballantrae . . . . .	..	35	21	56	..	35
West Coast Totals carried down			23	93	90	206	23	93
Fishery Cruiser " Brenda " . . . . .			..	..	..	..	..
" " " Freya " . . . . .			..	..	..	..	..
" " " Minna " . . . . .			..	..	..	..	..
" " " Norna " . . . . .			..	..	..	..	..
" " " Vigilant " . . . . .			..	..	..	..	..
H.M.S. " Ringdove " . . . . .			..	..	..	..	..
Cruisers' Totals carried down.			..	..	..	..	..
Totals brought down.								
East Coast			8	9	6	23	8	9
Orkney and Shetland . . . . .			..	..	..	..	..
West Coast			23	93	90	206	23	93
Cruisers . . . . .			..	..	..	..	..
Grand Totals for 1914			31	102	96	229	31	102
Grand Totals for 1913			26	134	74	234	25	131
Increase in 1914			5	..	22	..	6	..
Decrease in 1914	32	..	5	..	29

H.

Boat Proceedings in Scotland in the Year 1914, under Sea Fisheries Acts of 1868 and Amendment Act of 1885.

Issued.		Certificates Examined and Endorsed.				Boats Detained.						No.
Third Class.	Total.	First Class.	Second Class.	Third Class.	Total.	Steam Trawlers.	Other Steam Fishing Vessels.	First Class.	Second Class.	Third Class.	Total.	
..	..	3	44	..	47	15	..	..	..	..	15	1
..	8	84	49	2	135	..	..	..	..	..	..	2
..	..	..	..	..	..	..	..	..	..	..	..	3
..	..	..	..	..	..	..	..	..	..	..	..	4
..	..	..	..	..	..	..	..	..	..	..	..	5
..	..	19	15	18	52	135	9	..	..	..	144	6
..	..	246	98	196	540	..	2	..	..	..	2	7
1	4	56	62	32	150	..	..	..	..	..	..	8
..	..	152	21	28	201	..	..	..	..	..	..	9
..	..	..	..	..	..	..	..	..	..	..	..	10
..	..	..	5	29	34	..	..	..	..	..	..	11
5	11	20	45	43	108	..	..	..	..	..	..	12
..	..	31	26	27	84	..	..	4	..	..	4	13
6	23	611	365	375	1,351	150	11	4	..	..	165	14
..	..	..	..	..	..	..	..	..	..	..	..	15
..	..	..	..	..	..	1	..	..	2	..	3	16
..	..	..	..	..	..	1	..	..	2	..	3	17
5	35	119	213	208	540	..	..	..	..	..	..	18
13	22	34	124	131	289	..	..	..	..	..	..	19
30	32	4	134	161	299	..	..	..	..	..	..	20
6	21	19	170	202	391	..	..	..	..	..	..	21
4	7	9	50	137	196	..	..	..	..	..	..	22
3	14	1	210	41	252	..	..	..	..	..	..	23
5	11	..	131	73	204	..	..	..	..	..	..	24
..	2	2	38	45	85	..	..	..	..	..	..	25
3	6	..	47	55	102	..	..	..	..	..	..	26
21	56	..	224	116	340	..	..	..	..	..	..	27
90	206	188	1,341	1,169	2,698	..	..	..	..	..	..	..
..	..	..	..	..	..	78	6	12	..	..	96	..
..	..	..	..	..	..	53	8	..	..	..	61	..
..	..	..	..	..	..	1	..	21	4	..	26	..
..	..	..	..	..	..	1	..	5	..	..	6	..
..	..	..	..	..	..	..	..	..	22	..	22	..
..
..	..	..	..	..	..	133	14	38	26	..	211	..
6	23	611	365	375	1,351	150	11	4	..	..	165	..
90	206	188	1,341	1,169	2,698	1	..	..	2	..	3	..
..	..	..	..	..	..	133	14	38	26	..	211	..
96	229	799	1,706	1,544	4,049	284	25	42	28	..	379	..
73	229	885	1,944	1,446	4,275	511	102	115	74	1	803	..
23	..	..	..	98	..	..	..	..	..	..	..	..
..	..	86	238	..	226	227	77	73	46	1	424	..

APPENDIX I.—No. II.

RETURN of the PIERS and HARBOURS Erected or Improved by the FISHERY BOARD for SCOTLAND from 1st January 1883 to 31st December 1914, showing for each undertaking the CONTRIBUTIONS made by the Board, the SUBSCRIPTIONS raised by the Localities (so far as coming within the cognisance of the Board), and the TOTAL EXPENDITURE :—

County.	Pier or Harbour.	Total Contribution by the		Total Expenditure to 31st December 1914.	
		Board.	Locality.		
		£ s. d.	£ s. d.	£ s. d.	
Aberdeen .	*Rosehearty	3,881 10 11	500 0 0	4,381 10 11	
	Pennan .	1,320 13 4	776 2 11	2,096 16 3	
	Collieston .	5,482 0 7	1,618 4 6	7,100 5 1	
	Sandhaven	738 10 9	300 0 0	1,038 10 9	
Argyll .	Fraserburgh	5,000 0 0	..	5,000 0 0	
	Carsaig, Mull	5 17 0	..	5 17 0	
	Waterfoot, Cntyre .	24 0 0	116 14 0	140 14 0	
Ayr .	Dunure .	512 6 8	539 0 0	1,051 6 8	
	Ballantrae	105 0 0	109 14 4	214 14 4	
Banff .	Maidens .	1,181 19 6	1,181 19 6	2,363 19 0	
	Crovie .	971 16 3	324 12 6	1,296 8 9	
	*Findochty	9,331 8 9	7,500 0 0	16,831 8 9	
	Buckpool .	1,474 18 11	800 0 0	2,274 18 11	
	Buckie	7,000 0 0	..	7,000 0 0	
	(Cluny) .	6,993 16 0	3,500 0 0	10,493 16 0	
	†Whitehills .	8,815 11 3	3,700 0 0	12,515 11 3	
	Sandend .	432 18 4	577 5 0	1,010 3 4	
	Cullen .	1,400 0 0	600 0 0	2,000 0 0	
	Macduff .	1,000 0 0	..	1,000 0 0	
	Coldingham	3,000 0 0	10,000 0 0	13,000 0 0	
Fife .	St. Monance	5,839 18 1	2,269 0 0	8,108 18 1	
	Pittenweem	4,450 0 0	1,809 19 6	6,259 19 6	
	†St. Andrews	4,914 14 9	1,839 5 8	6,754 0 5	
	Cellardyke	1,300 0 0	512 8 4	1,812 8 4	
Forfar .	Auchmithie	4,125 0 0	1,125 0 0	5,250 0 0	
Haddington	Port Seton	180 0 0	96 0 2	276 0 2	
Inverness .	Broadford,				
	Skye .	7,875 0 0	2,625 0 0	10,500 0 0	
Kincardine	Stonehaven	2,900 0 0	..	2,900 0 0	
Northum-berland .	Greenshaven	319 16 1	600 0 0	919 16 1	
	Craster .	1,000 0 0	3,000 0 0	4,000 0 0	
Nairn .	Nairn .	5,587 10 0	1,862 10 0	7,450 0 0	
Orkney and Shetland	Holm, Orkney .	1,102 0 10	413 0 0	1,515 0 10	
	Whitehall, Stronsay	3,000 0 0	1,950 11 8	4,950 11 8	
Ross and Cromarty	Balintore	5,805 13 0	1,935 4 5	7,740 17 5	
	Rockfield .	10 0 0	5 0 0	15 0 0	
	Ness, Lewis	8,072 6 7	3,000 0 0	11,072 6 7	
	Cromarty .	300 0 0	137 13 9	437 13 9	
	†Avoch .	1,813 10 6	1,708 13 10	3,522 4 4	
Sutherland	Portnacon .	900 0 0	300 0 0	1,200 0 0	
		118,167 18 1	57,333 0 1	175,500 18 2	

* These harbours were begun by the old Board, but the whole of the payments made towards the works are now given.

† The grants to these harbours have not yet been wholly expended.

Grants have also been provisionally made to Findochty, Banff, Macduff, Cullen, and Port Charlotte amounting in all to £6,100.

APPENDIX I.—No. III.

BRAND FEES.—ACCOUNT OF THE BRAND FEE REVENUE, THE COST OF COLLECTION, THE SURPLUS, AND THE EXPENDITURE, during the period from 1881 to 1913-14.

Year of Collection.	Total Proceeds of Brand Fees.	Estimated Cost of Collection.*	Surplus or Deficit.	Year in which Surplus Voted.	Amount Voted.	How disposed of.								Transferred to General Harbour Fund.†
						For Telegraph Guarantees.	For Scientific Investigation.	For Eyemouth Harbour Loan Guarantee.	8.	9.	£	s.	d.	
1.	2.	3.	4.	5.	6.	£	s.	d.	£	s.	d.	£	s.	d.
10 Years) † 1881-90)	83,245	56,647	26,598	1882-92	26,860	9,710 14 1	768 1 4	1,824 0 0§	1,4557 4 7					
10 Years) † 1891-1900)	65,760	49,650	16,110	1892-1902	18,398	3,238 12 3	..	2,895 6 11	12,264 0 10					
1901	6,423	5,096	1,327	1902-03	1,327	..	..	460 4 6	866 15 6					
1902	7,259	5,219	2,040	1903-04	2,040	..	..	453 14 6	1,586 5 6					
1903	6,067	5,181	886	1904-05	886	..	..	447 4 6	438 15 6					
1904	8,070	5,443	2,627	1905-06	2,627	..	..	440 14 6	2,186 5 6					
1905	6,582	5,363	1,219	1906-07	1,219	..	..	437 9 6	781 10 6					
1906	5,100	5,487	387	..	..	..	..	..	..
1907	8,928	5,277	3,651	1908-09	3,651	..	..	421 4 7	3,229 15 5					
1908	7,218	5,419	1,799	1909-10	1,799	..	..	414 14 6	1,384 5 6					
1909	3,857	5,376	1,519	..	..	..	..	..	..
1910	5,246	5,467	221	..	..	..	..	..	..
1911	4,455	5,549	1,094	..	..	..	..	..	..
1912	2,915	5,550	2,635	..	..	..	..	..	..
1913	4,110	5,549	1,439	..	..	..	..	..	..
Total	225,235	176,273	48,962		58,807	12,949 6 4	768 1 4	7,794 13 6	37,294 18 10					

* For details see Civil Service Estimates (Class II., Vote for Fishery Board for Scotland).
† This amount was set aside in the year 1891 as a Reserve Fund, only to be drawn upon in the event of the Brand Fee Surplus in any particular year being insufficient, after defraying Telegraph Guarantees, to meet the liabilities under the Loan Guarantee. In 1892-93, £235 0s. 2d. was paid from this Fund; in 1898-99, £486 4s. 6d.; in 1900-01, £473 4s. 6d.; in 1901-02, £466 14s. 6d., and in 1906-07, the balance, amounting to £162 16s. 4d.
‡ For details of these years, see 26th Annual Report.

APPENDIX K.—No. I.

DAMAGE TO BOATS OR GEAR.—RETURN by Districts, of COMPLAINTS of damage to Fishing Vessels or their Gear by other Fishing Vessels, made to, and Investigated by, Officers of the FISHERY BOARD, in the Year 1914; and showing the Result in each case.

Date of alleged Offence.	Nature of Complaint.	Locality and Distance from Shore.	Whether Inside or Outside Territorial Waters.	Steps taken.	Result.
EYEMOUTH DISTRICT.					
1914 Feb. 17	Damage to nets of motor boat "Forward," B.K. 113, by steam trawler "Sark," G.W. 25.	7 miles N.E. by N. of Barns Ness Light.	Outside.	Interviewed both parties, and assessed damages at £8.	Found respondent at fault. Complainer accepted £5 in settlement of claim.
" "	Damage to nets of motor boat "Our Girls Three," B.K. 77, by steam trawler "Sark," G.W. 25.	Do.	Do.	Interviewed both parties, and assessed damages at £14.	Found respondent at fault. Complainer accepted £9 in settlement of claim.
" 21	Damage to nets of steam drifter "Consolation," B.K. 316, by steam trawler "Japonica," M. 133.	5 miles S.E. of May Island.	Do.	Investigated case, and assessed damages at £24.	Found respondent at fault. Complainer accepted £17 in settlement of claim.
" 24	Damage to nets of steam drifter "Consolation," B.K. 316, by steam trawler "Japonica," M. 133.	3 miles S.E. by E. of May Island.	Do.	Investigated case, and assessed damages at £60.	Liability admitted. Complainer accepted £55 in settlement of claim.
Aug. 14	Damage to nets of motor boat "Families Pride," B.K. 180, by sail boat "Lily," L.H. 104.	8 miles N.E. of Farne Islands.	Do.	Investigated case.	Found evidence insufficient. Case dropped.
ANSTRUTHER DISTRICT.					
Jan. 27	Damage to nets of motor boat "Elsbeth Smith," K.Y. 38, by trawlers "Gloximia," M. 126, "Fuchsia," M. 127, and "Glen Clova," G.W. 13 anchoring on fishing grounds.	Near May Island.	Inside.	Officer communicated with owners of trawlers. Damages assessed at £9.	Insurance company with which trawlers were insured paid £6 in settlement of claim.

APPENDIX K.—No. I.—*continued.*

Date of alleged Offence.	Nature of Complaint.	Locality and Distance from Shore.	Whether Inside or Outside Territorial Waters.	Steps taken.	Result.
MONTROSE DISTRICT.					
1914 Oct.	Loss of and damage to lines of motor boat "Eva," M.E. 193, by steam trawler "Scottish Queen," A. 384.	6 miles E.S.E. of Tod Head.	Outside.	Officer investigated case, and assessed loss at £1 15s.	Insurance agent for trawler paid the sum assessed by officer.
"	Loss of and damage to lines of motor boat "Aline," A.H. 140, by steam trawler "Mary Bell," G.N. 58.	Vicinity of Bell Rock, 8 miles off Arbroath.	Do.	Officer investigated case, and assessed loss at £2.	Respondent denied liability.
STONEHAVEN DISTRICT.					
Dec.	Carrying away of 2 strings of small line, buoy rope, and anchor of boat "Skylark," M.E. 243, by trawler "Ben Doran," A. 178.	5 miles S.E. from Stonehaven.	Do.	Officer investigated case, and assessed damage at £1 5s.	Found respondent at fault: damage paid as assessed.
ABERDEEN DISTRICT.					
Feb.	Carrying away of 1½ great lines of steam liner "Star of Peace," A. 323, by steam trawler "Lark," G.Y. 322.	3½ miles E. from Naulso Light, Faroe.	Do.	Officer investigated case. Damage assessed at £5.	Case dropped.
"	Carrying away of part of a great line of steam liner "Evening Star," A. 530, by steam trawler "Olympia," G.Y. 62.	27 miles N.N.W. from Hoy, Orkney.	Do.	Officer investigated case. Damage assessed at £1.	Case dropped.
April	Carrying away of 6 nets of drifter "Ben Lavers," A. 311, by steam liner "Othello," H. 956.	180 miles E. ½ N. from Aberdeen.	Do.	Officer investigated case. Damage assessed at £13 10s.	Complainer accepted £6 15s. in settlement of claim.

July	4	Carrying away of 12 great lines and dan of liner "Welsh Prince," S.N. 200, by steam trawler "Friesland," G.Y. 459.	8 to 10 miles N.W. $\frac{1}{2}$ N. from Myggenaes, Faroe.	Do.	Officer investigated case. Damage assessed at £31 10s.	Case dropped.
Sept.	2	Carrying away of 2 nets, and damage to bush rope of steam drifter "Golden Ray," B.F. 54, by steam trawler "Faith," A. 55.	10 to 12 miles N. by E. from Rattray Head.	Do.	Officer investigated case. Damage assessed at £5.	Case dropped.
June	4	FRASERBURGH DISTRICT.		Do.	Officer investigated case. Damage estimated by complainant at £95 10s.	Found respondent not at fault. A large proportion of the nets were salvaged and returned to complainant.
"	30	Damage to nets of sail boat "Rose Isle," I.N.S. 318, by steam trawler "Rainbow," A. 69.	42 miles N.E. by E. from Kin-naird Head.	Do.	Officer investigated case. Damage estimated at £6.	Found respondent at fault. Respondent denied liability; no settlement.
Feb.	12	BUCKIE DISTRICT.		Do.	Case reported to Fishery Board. Damage estimated at £9.	Legal proceedings necessary. No action taken.
Jan.	30	Damage to small lines of boat "Forward," I.N.S. 1696, by steam trawler "Greivers," I.J.M. 140.	17 miles N.E. of Lossiemouth.	Do.	Reported to Fishery Board. Estimated amount of damage, £8.	
"	"	Damage to small lines of boat "Mary Thomson," I.N.S. 1673, by steam trawler "Greivers," I.J.M. 140.	Do.	Do.	Reported to Fishery Board. Estimated amount of damage, £4.	
Feb.	11	Damage to cod nets of boat "Sublime," I.N.S. 246, by steam trawler unidentified.	15 miles N.E. of Lossiemouth.	Do.	Reported to Fishery Board. Estimated amount of damage, £6.	

APPENDIX K.—No. I.—*continued.*

Date of alleged Offence.	Nature of Complaint.	Locality and Distance from Shore.	Whether Inside or Outside Territorial Waters.	Steps taken.	Result.
FINDHORN DISTRICT— <i>continued.</i>					
1914 Feb. 13	Damage to cod nets of steam drifter "Inchbroom," I.N.S. 167, by steam trawler "Niobe," S.D. 5.	15 miles N.E. of Lossiemouth.	Outside.	Reported to Fishery Board.	Estimated amount of damage, £7.
"	Damage to cod nets of boat "Annie Gordon," I.N.S. 308, by steam trawler "Nestor," S.D. 12.	3½ miles S.E. of Tarbat Ness.	Do.	Reported to Fishery Board.	Estimated amount of damage, £7.
"	Damage to cod nets of boat "Star of Bethlehem," I.N.S. 165, by steam trawler "Nestor," S.D. 12.	Do.	Do.	Reported to Fishery Board.	Estimated amount of damage, £4.
"	Damage to cod nets of boat "Morayshire," I.N.S. 2223, by steam trawler "President Stevens," O. 85.	4 miles S.E. of Tarbat Ness.	Do.	Reported to Fishery Board.	Estimated amount of damage, £6.
"	Damage to small lines of boat "Choice," I.N.S. 491, by steam trawler, S.D. 19.	3½ miles N. of Hopeman.	Do.	Reported to Fishery Board.	Estimated amount of damage, £2.
"	Damage to small lines of boat "Grants," I.N.S. 2483, by steam trawler, S.D. 19.	Do.	Do.	Reported to Fishery Board.	Estimated amount of damage, £3.
"	Damage to cod nets of steam drifter "Marjery," I.N.S. 33, by steam trawler "Nestor," S.D. 12.	5 miles E. of Tarbat Ness.	Do.	Reported to Fishery Board.	Estimated amount of damage, £16 5s.
"	Damage to cod nets of steam drifter "Cudweed," I.N.S. 29, by steam trawler "Nestor," S.D. 12.	Do.	Do.	Reported to Fishery Board.	Estimated amount of damage, £16.

"	"	Damage to cod nets of boat "Catherine Murray," I.N.S. 1723, by steam trawler "Nestor," S.D. 12.	Do.	Do.	Reported to Fishery Board. Estimated amount of damage, £13 15s.	
"	"	Damage to cod nets of steam drifter "Champion," I.N.S. 55, by steam trawler "Dahlia," I.J.M. 19.	19 miles N.E. by N. of Lossiemouth.	Do.	Reported to Fishery Board. Estimated amount of damage, £8 15s.	
Mar.	13	Damage to cod nets of boat "Valiant," I.N.S. 255, by steam trawler "Nestor," S.D. 12.	4 miles N.W. of Burghead.	Do.	Reported to Fishery Board. Estimated amount of damage, £36 3s.	
"	"	Damage to cod nets of boat "Good Hope," I.N.S. 335, by steam trawler "Nestor," S.D. 12.	Do.	Do.	Reported to Fishery Board. Estimated amount of damage, £15.	
"	18	Damage to cod nets of boat "Gowan," I.N.S. 44, by steam trawler "Nestor," S.D. 12.	4 miles E. of Tarbat Ness.	Do.	Reported to Fishery Board. Estimated amount of damage, £39.	
"	26	Damage to cod nets of steam drifter "Vigilant," I.N.S. 4, by steam trawler "Norseman," S.D. 4.	5 miles S. of Tarbat Ness.	Do.	Reported to Fishery Board. Estimated amount of damage, £10.	
June	11	WICK DISTRICT. Damaging of nets and bush rope of the boat "Teenie Campbell," Ins. 199, by steam trawler "Companion," G.N. 23.	30 miles S.E. of Wick.	Outside.	Corresponded with owners of offending vessel.	Liability was denied and no further proceedings were taken.
Nov.	25	LOCH CARRON AND SKYE DISTRICT. Damage to nets of sail boats "St. Kilda," B.R.D. 16, "Dutiful," B.R.D. 214, and "Clan McLeod," B.R.D. 71, by steam drifter, "Sapphire," I.N.S. 391.	Loch Pooltiel.	Inside.	Officer investigated case. Damage estimated at £24 10s.	Found respondent at fault. Respondent paid no attention to the communications sent him.

APPENDIX K.—No. II.

ILLEGAL TRAWLING.—Return of Prosecutions undertaken against the Masters of British and Foreign Trawl Vessels in 1914, showing the Result in each case.

Date of Alleged Offence.	Name, &c., of Person Charged.	Name, Letters, and Number of Vessel.	Where alleged Offence Committed.	Statute or Bye-law Contravened.	Place and Date of Trial.	Result of Trial.	By whom Detected.
<i>VESSELS.</i>							
1913. Dec. 30	William Duthie, Master.	"Ben Alder," A. 16.	(1) <i>BRITISH</i> Within 3 miles of Whinnyfold, Parish of Slains.	Herring Fishery (Scotland) Act, 1889, Sec. 6.	Aberdeen, January 5th.	Fined £20 or 60 days' im- prisonment. Fine paid.	Fishery Cruiser "Freya."
" 15	Thomas Buxton, Master.	"Linnet," A. 43.	Within 3 miles of Milden, Parish of Belhelvie.	Do.	Aberdeen, January 16th.	Fined £30 or 60 days' im- prisonment. Went to prison.	Fishery Cruiser "Brenda."
" 6	Alexander Downie, Master.	"Excel," A. 288.	Moray Firth (out- side territorial waters).	Fishery Board Bye-laws 10 and 14.	Wick, January 23rd.	Fined £75 or 60 days' im- prisonment. Fine paid.	Fishery Cruiser "Freya."
" 19	Alliert Walkner, Master.	"Don," A. 443.	Loch Roag.	Herring Fishery (Scotland) Act, 1889.	Stornoway, February 11th.	Fined £80 or 60 days' im- prisonment. Went to prison.	Malcolm M'Leod and others, fishermen, Bernera.
1914. Jan. 12	Charles Snalley, Master.	"Expert," A. 521.	Moray Firth (out- side territorial waters).	Fishery Board Bye-laws 10 and 14.	Wick, March 28th.	Fined £75 or 60 days' im- prisonment, with forfeiture of port gear. Fine paid.	Fishery Cruiser "Freya."
1913. Dec. 19	John Main Noble, Master.	"Wamba," A. 326.	1½ miles from Briga Head.	Herring Fishery (Scotland) Act, 1889, Sec. 6.	Wick, April 7th.	Fined £50 or 60 days' im- prisonment. Went to prison.	Thurso fish- ermen.
1914. Feb. 23	Robert Scarborough, Master.	"Braconash," A. 484.	Loch Roag.	Herring Fishery (Scotland) Act, 1889.	Stornoway, April 23rd.	Fined £100 or 60 days' im- prisonment. Went to prison.	Malcolm M'Leod and others, fish- ermen, Bernera.
" "	Thomas Fitzpatrick, Master.	"Ant," A. 308.	Do.	Do.	Stornoway, May 6th.	Do.	Do.

Mar. 13	Andrew Ross Wood, Master.	"Fifeness," A. 377.	4½ Cables N. 7° E. from the E. side of entrance to Scotlogoe, Cath- ness.	Do.	Wick, May 26th.	Fined £50 or 60 days' im- prisonment. Fine paid.	Thurso fishet- men.
June 25	Charles Smalley, Master.	"Effort," A. 487.	Moray Firth (out- side territorial waters).	Fishery Board Byelaws 10 and 14.	Wick, July 28th.	Fined £90 or 60 days' im- prisonment. Fine paid.	Fishery Cruiser "Minna."
Aug. 19	Frederick Lee, Master.	"Sea Hawk," G.N. 37.	St. Andrews Bay.	Herring Fishery (Scotland) Act, 1889, Sec. 6.	Cupar, September 9th.	Fined £20 or 20 days' im- prisonment. Went to prison.	Private indi- viduals.
" 20	Andrew Ross Wood, Master.	"Fifeness," A. 377.	One mile off Newtonhill, Kin- cardineshire.	Do.	Stonhaven, September 9th.	Fined £15 or 60 days' im- prisonment. Fine paid.	Salmon fishers at Newtonhill.
" "	Tom Gant, Master.	"Centurion," G.N. 6.	Within 3 miles of coast off Slains Castle.	Do.	Aberdeen, Sept. 17th.	Fined £15 or 30 days' im- prisonment. Went to prison.	Chief coast- guardsman and fishermen, Port Erroll.
" 16 and 17	Charles Daley, Master.	"Bloodhound," A. 533.	¼ to 1 mile off Downies and Portlethen.	Do.	Stonhaven, October 7th.	Fined £15 or 20 days' im- prisonment. Fine paid.	Fishermen at Downies and Portlethen.
Sept. 10 and 11	Joseph Derrett, Master.	"Ant," A. 308.	Within 3 miles of coast, off Parish of Belhelvie.	Do.	Aberdeen, October 8th.	Fined £35 or 40 days' im- prisonment. Fine partly paid.	Coastguardsman at Menie, Bel- helvie.
" 12	Charles Smalley, Master.	"Effort," A. 487.	Within 3 miles of coast off Slains Castle.	Do.	Do.	Fined £20 or 30 days' im- prisonment. Fine paid.	Whinnyfold fishermen.
" 16	Frederick Bray, Master.	"Scottish Belle," A. 512.	Within 3 miles of Hackley Head, Parish of Slains.	Do.	Do.	Do.	Collieston fisher- men.
" 19	Nicholas Denoon, Master.	"Maraban," A. 527.	Within 3 miles of coast, Parish of Belhelvie.	Do.	Do.	Do.	Coastguardsmen at Menie, Bel- helvie.
" 20	Richard Adamson, Master.	"Expert," A. 521.	Within 3 miles of coast at Menie, Parish of Bel- helvie.	Do.	Do.	Do.	Police constable and a game- keeper at Bel- helvie.

APPENDIX K.—No. II.—*continued.*

Date of Alleged Offence.	Name, &c., of Person Charged.	Name, Letters, and Number of Vessel.	Where Alleged Offence Committed.	Statute or Bye-law Contravened.	Place and Date of Trial.	Result of Trial.	By whom Detected.
1914. Sept. 7	Jas. Alexander, Master.	"Water Lily," B.A. 468.	Luce Bay.	Herring Fishery (Scotland) Act, 1889, Sec. 6, as amended by Herring Fishery (Scotland) Act, Amendment Act, 1890, Sec. 3.	Stranraer, October 8th.	Not proven.	Thomas Parker, fisherman, Glenluce.
" 11	John Johnston, Master.	"Rosslyn," L.H. 138.	1 mile E. of May Island.	Herring Fishery (Scotland) Act, 1889, Sec. 6.	Cupar, October 20th.	Fined £20 or 20 days' imprisonment. Fine paid.	Lighthouse Keepers on May Island.
" 13	George Marsh, Master.	"Duke of York," A. 422.	Moray Firth. Between Logie Head and Crathie Point, Banffshire.	Bye-laws Nos. 10 and 14 of the Fishery Board for Scotland (also Sec. 20 (2) of Regulations for Registry, Lettering, and Numbering of Sea Fishing Boats).	Banff, October 28th.	Fined £25 or 1 month's imprisonment. Fine paid.	Skipper and crew of steam drifter "In-pina," P.D. 519, on Admiralty service.
" 16	Hector Sinclair, Master.	"Japonica," M. 133.	Off Carnoustie.	Herring Fishery (Scotland) Act, 1889, Sec. 6.	Dundee, November 27th.	Fined £15 or 60 days' imprisonment. Fine paid.	Coastguard Officers at Carnoustie.
" 30	Benjamin Rose, Master.	"Sea King," A. 223.	$\frac{3}{4}$ of a mile N. 33° E. from low water mark at Sandside Point (inside territorial waters).	Do.	Wick, November 27th.	Fined £75 or 60 days' imprisonment. Fine paid.	Sandside fishermen.

Oct. 24	William Oldan, Master.	"Rosebery," G.N. 8.	2 to 3 miles S.W. of May Island.	Do.	Cupar, December 1st.	Fined £10 or 20 days' im- prisonment. Fine paid.	Fishery Officer.
" 25	Boreas Liston, Master.	"Champion," G.N. 48.	About 4 miles W. of May Island.	Do.	Do.	Do.	Do.
" 3	Peter Petersen, Master.	"City of Selby," F.D. 8.	Luce Bay.	Herring Fishery (Scotland) Act, 1889, Sec. 6, as amended by Herring Fish- ery (Scotland) Act, Amend- ment Act, 1890, Sec. 3.	Stranraer, December 3rd.	Fined £5 or 21 days' im- prisonment. Fine paid.	Jas. M'Cracken, fisherman, Drummore.
" 4	William Roskell, Master.	"Fanny," F.D. 89.	Do.	Do.	Do.	Do.	Do.
" "	Herbert Percy Jones, Master.	"Niblick," B.H. 81.	Do.	Do.	Do.	Do.	Do.
" " and 9	Robt. Rothwell Bedford, Master.	"Euston," F.D. 67.	Do.	Do.	Do.	Do.	Do.
" 9	Joseph Rowson, Master.	"Victoria," F.D. 37.	Do.	Do.	Do.	Do.	Do.
" "	William Griffiths, Master.	"Renovo," G.Y. 23.	Do.	Do.	Do.	Do.	Do.
" " and 12	Geo. Herbert Frece Birch, Master.	"Scorpio," G.Y. 467.	Do.	Do.	Do.	Do.	Do.
" 22	Richard Collinson, Master.	"City of Liver- pool," F.D. 197.	Firth of Clyde.	Herring Fishery (Scotland) Act, 1889.	Ayr, December 9th.	Fined £5 or 20 days' im- prisonment. Fine paid.	Fishery Officer at Girvan.
" "	George Oliver, Master.	"Jasper," H. 176.	Do.	Do.	Do.	Do.	Do.
" "	Wm. Sparks, Master.	"Tettenhall," F.D. 43.	Do.	Do.	Do.	Do.	Do.
" "	James Jackson, Master.	"Romeo," G.Y. 461.	Do.	Do.	Do.	Do.	Do.

APPENDIX K.—No. II.—*continued.*

Date of Alleged Offence.	Name, &c., of Person Charged.	Name, Letters, and Number of Vessel.	Where Alleged Offence Committed.	Statute or Bye-law Contravened.	Place and Date of Trial.	Result of Trial.	By whom Detected.
1914. Oct. 26	William Palmer, Master.	"Refino," 1271.	Firth of Clyde.	Herring Fishery (Scotland) Act, 1889.	Ayr, December 9th.	Fined £5 or 20 days' im- prisonment. Fine paid.	Fishery Officer at Girvan.
" "	James Hodgson, Master.	"Restango," G.Y. 946.	Do.	Do.	Do.	Do.	Do.
Nov. 6, 7, and 8	Thomas Hornby, Master.	"Kitty," F.D. 179.	Do.	Do.	Do.	Do.	On November 6 by Fishery Officer of Camp- beltown, on 7 and 8 by Naval Patrol boats.
Oct. 22	William Griffiths, Master.	"Renovo," G.Y. 23.	Do.	Do.	Do.	Charge withdrawn as accused engaged in mine sweeping.	Fishery Officer at Girvan. Con- stabulary.
" 20	Philip Wm. Page, Master.	"Recolo," G.Y. 668.	Do.	Do.	Do.	Do.	Ayrshire
" 28	Alfred Joseph Jackson, Master.	"Marton," F.D. 38.	Do.	Do.	Ayr, December 10th.	Fined £5 or 20 days' im- prisonment. Fine paid.	Naval Patrol boat.
Nov. 1	Charles Emerson, Master.	"Langland," H. 1013.	Do.	Do.	Do.	Do.	Do.
" 7	George Blow, Master.	"Rodimo," G.Y. 836.	Do.	Do.	Do.	Do.	Do.
Oct. 6 Nov. 6	Ernest Salthouse, Master.	"Manda," F.D. 178.	Kilbrannan Sound, Firth of Clyde.	Herring Fishery (Scotland) Act, 1889, Sec. 6.	Campbeltown, December 11th.	Fined £25 or 60 days' im- prisonment. Fine paid.	On October 6th by Campbel- town fishermen. On November 6th by Fishery Officer at Camp- beltown.
Oct. 7	Harry Howard, Master.	"Crystal," H. 303.	Do.	Do.	Do.	Fined £5 or 30 days' im- prisonment. Fine paid.	Tarbert fisher- men.

Nov.	6	Arthur Brand, Master.	"Remagio," G.Y. 843.	Do.	Do.	Do.	Fishery Officer at Campbeltown. Do.
"	"	James Sandham, Master.	"Star of Free- dom," F.D. 200.	Do.	Do.	Do.	Do.
"	"	Arthur Smith, Master.	"Revero," G.Y. 104.	Do.	Do.	Do.	Do.
"	"	John Wilkinson, Master.	"Renco," G.Y. 512.	Do.	Do.	Do.	Do.
"	24	George Marsh, Master.	"Excel," A. 288.	Within 3 miles of Colliston har- bour.	Do.	Fined £100 or 60 days' im- prisonment. Fine paid.	Whinnay fold fishermen.
Oct.	9	Jno. Ford, Master.	"Repro," G.Y. 510.	E. of Arran.	Do.	Diet deserted, <i>pro loco et tempore</i> .	s.s. "Gael."
"	"	Alex. Carroll, Master.	"Recordo," G.Y. 507.	Do.	Do.	Fined £5 or 30 days' im- prisonment. Fine paid.	Do.
"	"	Ernest A. Beasley, Master.	"Reperio," G.Y. 298.	Do.	Do.	Do.	Do.
"	"	Edgar Neave, Master.	"Connie," F.D. 194.	Do.	Do.	Do.	Do.
"	"	James Milross, Master.	"Braemar," F.D. 125.	Do.	Do.	Do.	Do.
"	"	George Oliver, Master.	"Jasper," H. 176.	Do.	Do.	Admonished.	Do.
"	"	William Hatton, Master.	"Cameo," H. 394.	Do.	Do.	Fined £5 or 30 days' im- prisonment. Fine paid.	Do.
Nov.	22	Fredk. Darwood, Master.	"Repro," G.Y. 510.	N.E. of Arran.	Do.	Do.	H.M.S. "Bon- etta," Ardros- sah.
"	28	John Barber, Master.	"Violet Cate," A. 302.	Within 3 miles of Aberdeen.	Do.	Fined £80 or 60 days' im- prisonment. Fine paid.	H.M.S. "Boreas."
"	"	Robert Noble, Master.	"Taymouth," A. 154.	Do.	Do.	Fined £50 or 40 days' im- prisonment. Fine paid.	Do.

APPENDIX K.—No. II.—*continued.*

Date of Alleged Offence.	Name, &c. of Person Charged.	Name, Letters, and Number of Vessel.	Where Alleged Offence Committed.	Statute or Bye-law Contravened.	Place and Date of Trial.	Result of Trial.	By whom Detected.
1914.							
Nov. 28	Robert Armour, Master.	"Thistle," G. W. 2.	Within 3 miles of coast, off Aberdeen.	Herring Fishery (Scotland) Act, 1889, Sec. 6.	Aberdeen, December 21st.	Fined £50 or 40 days' imprisonment. Fine paid.	H.M.S. "Boreas"
"	William Main, Master.	"Kennet," A. 332.	Do.	Do.	Do.	Do.	Do.
"	William Baxter, Master.	"Kittiwake," A. 469.	Do.	Do.	Do.	Do.	Do.
"	David Noble, Master.	"Faith," A. 55.	Do.	Do.	Do.	Do.	Do.
"	Michael Doig, Master.	"Monarch," A. 35.	Do.	Do.	Do.	Do.	Do.
"	William Wood, Master.	"Duke of York," A. 422.	Do.	Do.	Aberdeen, Dec. 24th.	Do.	Do.
"	John Cornack, Master.	"Ben Rinnes," A. 488.	Do.	Do.	Do.	Do.	Do.
"	James Mair, Master.	"Swiftwing," B.F. 496.	Do.	Do.	Aberdeen, Dec. 26th.	Do.	Do.
Oct. 2 and 10	Albert Edward Hickson, Master.	"Roto," G.Y. 22.	Firth of Clyde.	Do.	Campbeltown, Dec. 28th.	Diet deserted as accused engaged in mine-sweeping.	S.S. "Rob Roy."
1913.							
Nov. 30	Gustav Hansen, Master.	"Nestor," S.D. 12.	FOREIGN Moray Firth. 1½ mile from low water mark, opposite salmon bothy, Parish of Dyke and Moy, Elginshire.	Herring Fishery (Scotland) Act, 1889, Sec. 6.	Elgin, January 29th, 1914.	Not proven.	Fishery Cruiser "Freya."
1914.							
Mar. 23	John Martensen, Master.	"Fulmar," E. 194.	Within 3 miles of Forse Point, Caithness shire.	Sea Fisheries Act, 1883, Sec. 7, Subsec. 2 b.	Aberdeen, April 2nd.	Fined £10 or 60 days' imprisonment, fish and gear forfeited. Fine paid.	Do.

APPENDIX K.—No. III.

OFFENCES OTHER THAN ILLEGAL TRAWLING.—RETURN for 1914 of PROSECUTIONS undertaken for alleged infringement of (a) Regulations for the Registering, Lettering, and Numbering of Sea Fishing Boats; (b) the Regulations for the Prevention of Collisions at Sea; (c) the Herring Fishery (Scotland) Act, 1889, sec. 5, fixing a weekly close time for Herring Fishing on the West Coast of Scotland; and (d) any other offence (other than illegal trawling).

Date of Alleged Offence.	Name, and Designation of Party Charged.	Name, Letters, and Number of Vessel.	Where Alleged Offence Committed.	Nature of Offence.	Place and Date of Trial.	Result of Trial.	By whom Detected.
1913 July 7	Arthur Stewart, Master.	"Drumblade," A. 133, trawler.	70 miles E.N.E. of Buchanness.	Sea Fisheries Act, 1883, sec. 4 (b) and Art. 19.	Aberdeen, January 19th.	Fined £30 or three months' imprisonment. Went to prison.	Master and Crew of "Jean," B. 2783, of Boulogne. Fishery Cruiser "Freya."
Nov. 30	Gustav Hansen, Master.	"Nestor," S.D. 12.	Moray Firth, off Elginshire.	Sea Fisheries Act, 1883, sec. 14 (2).	Elgin, January 29th.	Convicted on appeal.	
Dec. 19	Albert Walkner, Master.	"Don," A. 443.	Loch Roag.	Concealment of Letters and Number.	Stornoway, February 11th.	Not guilty.	Bernera fishermen.
July 25 and 26	Alexander Straehan, Master.	"Hope," P.D. 96.	North Sea, Lat. 57° 45' N.	Sea Fisheries Act, 1883, sec. 4, and Art. 22.	Aberdeen, March 16th.	Fined £5. Fine paid.	Master and Crew of "Andrew Carnegie," S.C.H. 93.
Dec. 19	John Main Noble, Master.	"Wamba," A. 326, trawler.	Off Briga Head, Caithness.	Contravention of the Regulations for the prevention of Collision at Sea.	Wick, April 7th.	Fined £50 or 60 days' imprisonment.	Thurso fishermen.
1914 Feb. 23	Robert Scarborough, Master.	"Braconash," A. 484, trawler.	Loch Rong.	Do.	Stornoway, April 23rd.	Fined £20 or 12 days' imprisonment. Went to prison.	Bernera fishermen.
March 13	Andrew Ross Wood, Master.	"Fifeness," A. 377, Trawler.	Off Scotlogoe, Caithness.	Do.	Wick, May 26th.	Fined £50 or 60 days' imprisonment.	Thurso fishermen.
June 8	Malcolm Blair, Master.	"Twin Brothers," C.N. 79.	Kildalloig Bay, Firth of Clyde.	Contravention of Herring Fishery (Scotland) Act, 1889, sec. 5. (Daylight fishing.)	Campbeltown, June 22nd.	Fined 10s. or 3 days' imprisonment. Fine paid.	Fishery Cruiser "Vigilant."

APPENDIX K.—No. III.—*continued.*

Date of Alleged Offence.	Name, and Designation of Party Charged.	Name, Letters, and Number of Vessel.	Where alleged Offence Committed.	Nature of Offence.	Place and Date of Trial.	Result of Trial.	By whom Detected.
1914. June 8	Archibald Blair, Master.	"Maggie N'Nab," C.N. 103.	Kildalloig Bay, Firth of Clyde.	Contravention of Herring Fish- ery (Scotland) Act, 1889, sec. 5. (Daylight fishing).	Campbeltown, June 22nd.	Fined 10s. or 3 days' im- prisonment. Fine paid.	Fishery cruiser; "Vigilant."
"	Duncan Black, Master.	"Speedwell," C.N. 12.	Do.	Do.	Do.	Do.	Do.
"	John Gilchrist, Master.	"Catherine and Agnes," C.N. 672.	Do.	Do.	Do.	Do.	Do.
"	James Robertson, Master.	"Lady Charlotte," C.N. 174.	Do.	Do.	Do.	Do.	Do.
"	Nell M'Kenzie, Master.	"Lady Edith," C.N. 175.	Do.	Do.	Do.	Do.	Do.
"	Duncan O'Hara, Master.	"Consort," C.N. 133.	Do.	Do.	Do.	Do.	Do.
"	Duncan M'Allister, Master.	"Colleen Bawn," C.N. 96.	Do.	Do.	Do.	Do.	Do.
"	Archibald M'Kay Master.	"Noel," C.N. 115.	Eastward of Davaar Island. Do.	Do.	Do.	Do.	Do.
"	Pennis M'Kay Master.	"Annunciata," C.N. 116.	Do.	Do.	Do.	Do.	Do.
"	Archibald Sinclair, Master.	"(Glenfyne)," T.T. 191.	Kilbrannan Sound, near Skipness. Do.	Do.	Do.	Do.	Do.
"	Duncan M'Lachlan, Master.	"Roseberry," T.T. 64.	Do.	Do.	Campbeltown, July 3rd Do.	Do.	Do.
Sept. 13	George Marsh, Master.	"Duke of York," A. 422.	Moray Firth, be- tween Logie Head and Grathie Point, Banffshire.	Contravention of sec. 20 (2) of Regulations for Registry, Let- tering and numbering of fishing boats.	Banff, October 28th	Fined £25 or one month's imprisonment. Fine paid.	Skipper and Crew of Steam Drifter "Lap- ina," P.D. 519.

APPENDIX K.—No. IV.

ILLEGAL TRAWLING.—Summary of Prosecutions undertaken during the period 1886-1914 inclusive, showing number of Convictions obtained, Amount of Fines Imposed, &c., &c.

Years.	Number of Prosecutions undertaken.	Number of Convictions obtained.	Number of Verdicts of "Not Guilty."	Number of Verdicts of "Not Proven."	Amount of Fines imposed.	Amount of Fines paid.	Number of Masters who close the alternative of imprisonment.	Number of Detentions made by means of Board's cruisers.	Number of Detentions made by means of Admiralty vessels.	Number of Detentions made by Fishermen or other persons.
1886	7	6	1	..	£ s. d.	£ s. d.	..	..	..	..
1887	11	10	1	..	26 0 0	26 0 0	..	..	..	..
1888	3	3	..	..	26 5 0	26 5 0	..	..	..	..
*1889	20	16	..	..	35 0 0	25 0 0	1	..	..	..
1890	36	32	..	4	117 0 0	107 0 0	1	..	..	..
1891	23	18	1	3	254 0 0	239 0 0	1	..	..	..
1892	12	9	3	2	490 0 0	440 0 0	2	..	..	..
1893	11	11	..	3	215 0 0	210 0 0	1	..	..	..
1894	7	5	..	..	370 0 0	270 0 0	1	..	..	..
1895	30	24	4	2	250 0 0	5 0 0	4	..	..	..
†1896	23	20	..	3	467 0 0	440 0 0	2	..	..	..
†1897	20	15	..	3	950 0 0	445 0 0	7	3	..	12
†1898	5	4	..	5	737 0 0	417 0 0	5	..	11	9
1899	17	17	..	1	102 0 0	17 0 0	2	..	2	3
1900	31	30	..	..	665 0 0	555 0 0	3	8	1	8
1901	26	24	..	1	1,705 0 0	1,167 0 0	10	22	2	7
1902	21	18	..	2	1,045 0 0	550 0 0	10	17	3	6
1903	27	25	..	3	927 0 0	502 0 0	7	9	2	10
1904	33	30	1	..	1,355 0 0	1,011 0 0	6	16	3	8
1905	38	34	2	2	1,900 0 0	548 15 0	21	23	..	10
1906	38	35	2	2	2,645 0 0	1,475 13 4	13	27	3	8
1907	131	122	6	3	2,280 0 0	1,376 13 4	43	33	..	5
1908	30	29	..	2	4,495 0 0	1,381 19 8	42	74	31	26
1909	63	61	1	..	2,136 0 0	439 2 6	20	11	3	16
1910	31	30	..	2	4,738 0 0	1,026 6 8	20	34	3	26
1911	53	49	..	1	2,005 0 0	543 16 8	18	26	1	4
1912	36	30	..	5	3,355 0 0	1,176 13 4	30	24	11	18
1913	29	27	..	2	1,580 0 0	507 6 8	13	20	1	14
1914	73	66	..	2	1,345 0 0	720 0 0	9	21	1	7
					1,810 0 0	1,412 7 6	7	7	15	51
885	800	22	53	53	38,035 5 0	17,096 19 8	278	375	102	248

* In 1889 an Act was passed making trawling illegal in territorial waters around the coast of Scotland, except in certain areas; previous to that year, prosecutions for trawling could only be undertaken for contraventions of the Board's Bye-laws.

† Previous to 1896 no record was kept of "Means of Detection."

‡ The Board acquired a fourth new cruiser in December 1900, and a fifth in September 1904, but in October 1904 they disposed of one of the cruisers built in 1893 as being too small to be practically useful. An additional cruiser was commissioned in May 1909.

APPENDIX L.

REPORTS BY THE INSPECTORS OF SEA FISHERIES AND
DISTRICT FISHERY OFFICERS.

I. INSPECTORS OF SEA FISHERIES.

General Inspector of Sea Fisheries.

The year 1914 will long be remembered as being the most momentous in the annals of the Scottish fisheries. In consequence of hostilities which broke out early in August between this country and Germany, the abnormal prosperity which attended the various branches of the home industry in 1913, and which was followed up by the Scottish fishermen and curers in East Anglia, was not this season maintained.

The results for the various fisheries for the year show a decrease of 388,029 cwts. and £781,853 in value, as compared with 1913. The shortage is entirely due to the restriction of fishing in the waters of both the East and West Coasts owing to the war. In the returns of herrings, which is by far the most important fishery, there is a decrease of 66,058 cwts. and £748,708 in value, while in the quantity and value of white fish landed there is also a shortage of 347,249 cwts. and £45,768. Owing to the short deliveries of white fish and the enormous demand which set in for this commodity, the fishermen were largely compensated for the lack of quantity by the high prices obtained. In both the quantity and value of the shell fisheries there is a marked decrease. From August onwards the demand for both lobsters and oysters fell off considerably. In many of the southern markets the former only realised nominal prices.

Means of Capture.

The most notable feature in connection with the means of capture was the large increase in tonnage and value of boats and fishing gear used in the fisheries. In tonnage there is an increase of 5·2 per cent. In value of boats and vessels 5·2 per cent., and in fishing gear ·23 per cent. as compared with 1913. Practically the whole of the increases referred to occurred in the East Coast districts. On the other hand, there are decreases in the number of sailing boats, and also in the number of fishermen and boys employed.

In otter trawl vessels there is an increase of 15 in number and £85,000 in value. The boom in trawler building which set in early in the year was maintained throughout the whole of 1914. At Aberdeen no fewer than 54 vessels were launched, as against 42 in 1913; and at Leith, where no vessel of this description has been built for the past 5 or 6 years, orders for no less than 10 were placed with the local builders. The increase in steam drifters over the previous year was 97, valued at £153,800. Several of these were second-hand boats purchased in England. So great was the demand for this class of vessel that the price in some cases was more than the cost of the vessel when new. But for the unfortunate rupture between the countries involved in hostilities, and the restrictions

imposed on the East Anglian herring fishing, the number of steam fishing vessels would have been considerably increased, as many crews had placed orders with builders which had ultimately to be withdrawn.

In the number of motor boats, which includes new and second-hand craft fitted with the installation, there is an increase of 171. The tonnage of these vessels has increased 43 per cent. and the value 37·1 per cent. over the previous year. The districts which principally account for these increases are—Leith, Montrose, Fraserburgh, Banff, and Wick on the East Coast, and Loch Carron and Skye. Inverary, Campbeltown, and Ballantrae on the West Coast. In the Campbeltown district the whole of the herring fleet has now been fitted with motor installation, and from the success of these boats it is only a matter of time until all the craft employed at herring fishing in the estuary of the Clyde will have been so fitted.

The decrease of 400 boats in the sailing craft is partly due to their conversion from sail to the motor class, and partly to a number of old boats being removed from the register as being unfit for further use. The enormous increase in netting on the East Coast, which amounts to close upon 4 million square yards, is due to larger drifts being employed and to the most prosperous class of fishermen being provided in case of damage or loss of those in use with from 1 to 2 drifts of a reserve stock. Ten years ago 50 to 60 nets were considered a fair average drift, now 80, 90, and up to 100 nets are regularly shot by the majority of the fleet employed.

In the number of resident fishermen there is a decrease of 541 men. Of this number the East Coast accounts for 1·27 per cent., Orkney and Shetland for 2·78 per cent., and the West Coast 2·06 per cent. The decrease is mainly due (1) to the decline of the inshore fisheries, (2) to co-operation among the boat-owners, and (3) to emigration.

Of the various fishings prosecuted on the Scottish Coasts the herring fishing holds the premier place. Next in order of importance come trawling, lining, and cod-net fishing.

Herring Fishing.

At the end of July, and at the very time the herrings were approaching maturity, and when there seemed every prospect that the fishing would surpass all previous records, the industry was practically brought to a standstill owing to the unfortunate hostilities with Germany. The landings from then onwards were below the average. There was no inducement to the fishermen to secure big catches, as there was absolutely no demand by the curers for herrings. Buyers were satisfied with supplies sufficient to meet the demands of the home market. At the beginning of September there were upwards of 300,000 barrels of cured herrings on hand. As the upper and lower Baltic ports were closed, curers had to consider how to get rid of the stocks. Fortunately, Archangel, one of the ports of our Allies, was free to receive shipments, with the result that before the end of October about one third of the stocks on hand were exported thereto. Owing, however, to the scarcity of rolling stock which was being used for the importation of Government purchases to which priority was given, the greater part of the stocks were, unfortunately, lying at the port of delivery at the close of the year. Large quantities were also despatched to America, the export to that country being several thousand barrels above that of 1913. An outlet was also found in shipments to Norway and Sweden, but latterly an embargo was placed on herrings intended for export to these countries.

Owing to the restrictions and difficulties of export a larger business

than usual was done locally and throughout the country by curers in catering for the home markets, and in this way some thousands of packages from an eighth of a barrel to a whole one were disposed of. A field for such a business is undoubtedly at hand, but curers prefer to dispose of their goods wholesale. To a great extent this local or country business is strangled by the retailer, who persists in demanding much too high a price. At the close of the year the stocks of cured herrings on hand stood at 79,000 barrels, as compared with 17,000 in 1913.

Trawling.

From the commencement of the year up to the beginning of August, trawling was prosecuted with a great measure of success. Fish was plentiful, and prices above the average. But for the restrictions, which made fishing in the North Sea for a time almost impossible, except to those willing to undergo all risks, the year just closed would have been the most prosperous on record. Owing, however, to the large number of vessels which were commandeered as mine-sweepers, the landings fell considerably short of the previous year. Fish as a commodity is annually becoming more widely known, and famine prices were often quoted. On several occasions the demand far exceeded the supply, with the result that prime quality of fish brought from 50 to 100 per cent., and the poorer kinds from 100 to 300 per cent. more than in 1913. Plaice and other kinds of flat fish appear to be decreasing year by year in the North Sea. On the other hand, hake, ling, and saithe, were more abundant than in 1913. From July onwards immense shoals of young haddock made their appearance in the North Sea and off the coast. The first landings up to the end of July were often unsaleable, only a small portion going into consumption, but latterly, owing to the high prices of other kinds, a brisk demand sprang up for them.

The dried fish trade of Aberdeen has become almost wholly dependent for supplies on Iceland fish from German trawlers. Up to the outbreak of the war, some 512 landings were made by these vessels, which realised £163,363, as compared with 572 landings, valued at £170,760 in 1913.

It is gratifying to note that in the direction of Faroe new grounds have been discovered, from which some very fine hauls of large haddock were secured.

Steam-Line Fishing.

Steam-line fishing did not meet with the same success as in previous years. The most successful catches are usually obtained in autumn. In the catches of halibut from the Atlantic grounds there was a considerable decrease, for which even the high prices did not compensate. A number of the vessels now engaged in this fishing were formerly trawlers of the older class. From practically all the districts on the coast small-line fishing was prosecuted with greater activity than has been the case for many years back, owing to the fishermen, who formerly prosecuted the herring fishing in East Anglian waters, having to remain at home, on account of the restrictions placed upon the fishing grounds in that locality in consequence of the war. In several of the districts, particularly Eyemouth, Montrose, and Shetland, the fish appeared to be more abundant than for several seasons back. The haddock fishing in Shetland, particularly in the direction of Scalloway and Burra Isle, was one of the most successful on record. There were several motor-boats employed, and these had the advantage over the sailers, frequently making a couple of trips per day to the fishing grounds, and landing catches of from 12 to 20 cwts. per trip. In previous seasons the fishermen usually entered into

an agreement with the curer to deliver their fish at about 12s. per cwt., but during the season of 1914 they arranged to consign their catches to Aberdeen market where, owing to the restrictions on trawling in the North Sea, and the consequent scarcity of fish, exceptionally high prices were obtained for them. The result was that several crews (4 men) earned from £60 to £80 per week. The total landings of white fish caught on the East Coast by lines, including Orkney and Shetland, were 553,329 cwts., valued at £351,977, as compared with 484,786 cwts., valued at £288,581 in 1913.

Cod-net Fishing.

Cod-net fishing was prosecuted principally from the districts of Buckie and Findhorn. Owing to unfavourable weather conditions, and also to a scarcity of fish on the spawning grounds, the catch fell considerably short of the average of the four preceding years. The total landings for the season, which extended from the middle of February to 11th April, amounted to 28,291 cwts., valued at £14,332, as compared with 56,713 cwts. and £26,415 in 1913. The average number of steamers employed was 34, of motor-boats 19, and of sailers 108. Altogether, upwards of 1000 men were engaged in this fishing. During the season of 1913 extensive loss was occasioned through foreign trawlers trawling over the cod nets. Steps, however, were taken by the Board to minimise the risk of damage, by issuing regulations at the commencement of the season, providing for the marking and lighting of these nets. These regulations were circulated both in home and foreign trawling ports, and during the year under review there was a very appreciable decrease in the cases of loss reported.

Mackerel Fishing.

The shoals of mackerel on both the East and West Coasts were quite as abundant as in 1913. The only district on the coast where mackerel fishing is carried on, apart from herring fishing, is Loch Carron and Skye. The landings at Kyle of Lochalsh—the terminus of the Highland Railway—show an increase in quantity and value as compared with 1913. Owing to the railway facilities for the early despatch of the fish to the southern markets, the average price per cran was 19s. 5d., as against 16s. 5d. during the previous season. At all the other districts on the West and East Coasts the catches of mackerel are merely incidental to the herring fishing. The presence of such large shoals of mackerel in the North Sea and Scottish waters during the past two seasons is unaccountable, the more so as there had been an absence of this fish in the North Sea for several years prior to 1910. Large quantities are now being purchased for tinning. With the exception, however, of a few barrels cured for the American markets, the great bulk of the catch was forwarded in a fresh state—boxed and iced—to the southern markets. Almost annually a small fleet of Scandinavian vessels, with stocks and plant on board for curing mackerel, make Lerwick Harbour their headquarters. Altogether about 1500 barrels were cured by them, which they took home to Norway and Sweden. The average price for the season was 3s. 11d. per cwt., as compared with 2s. 8½d. in 1913. The price very much depended on the days on which delivery was made. On Fridays and Saturdays only nominal prices were obtained, whereas in the early part of the week, at stations where there was a good railway connection, the fish realised high prices.

Sprat Fishing.

In contrast to the past few years, the sprat fishing prosecuted in the Firths of Forth, Tay, and Beaully was attended with a large measure of

success, particularly in the Tay and Beaully. In the waters of the Forth the fishing was carried on chiefly from Kincardine, Alloa, and Bo'ness. On the old grounds of Newhaven none was secured. The total landings were 27,294 cwts., valued at £8443, as compared with 8117 cwts. and £1772 in value during the previous year. Prices exceeded all previous records. On several occasions as high as 42s. per cran was obtained. The average price was 21s. 7½d. per cran, as compared with 15s. 3½d. in 1913. The fishermen employed had a most remunerative season, and earnings of from £5 to £8 per man per week were not uncommon. The increased demand was mainly due to a scarcity of herrings in the English markets. Large quantities were also prepared for exportation to Norway and Sweden.

Herring Curing.

To the curers the season was one of great disappointment and concern. To commence with preparations were on a larger scale than usual; the stocks of empty barrels and salt and the number of workers, for whom provision had to be made, were larger than in any previous season. To add to this disappointment, the fishing commenced early in May, and a large proportion of the unripe herrings could not be disposed of, and lay in stock at the close of the year. A few of the most striking features of the fishing were (1) its early commencement, (2) the exceptional demand, (3) the combine among the continental buyers and importers, (4) the strikes among the gutters and packers, and (5) the abrupt termination of the fishing.

With regard to (1) a very much earlier commencement was made than usual not only in Shetland and Orkney, but also on the East Coast. This early fishing may be of benefit to the fishermen so long as remunerative prices are obtained. Curing is, however, a speculative industry—fortunes have been made and lost in it—but since this early fishing has assumed such large proportions the risks have become very much greater, since if the goods do not find a ready market—and storage has to be resorted to, a serious loss on the season's transaction is inevitable. Annually a great deal is written as to the detrimental effect upon the trade of the catching and curing of immature fish, and Fishing Associations have repeatedly passed resolutions to defer the commencement of the fishing to a later date, but owing to the large amount of capital invested in boats and gear, and the heavy working expenses, fishermen are not disposed to agree to a close time. Unless, however, the trade as a whole—curers, kipperers, and fishermen—are disposed to adopt a date which will ensure fish of a fair degree of maturity being landed, the early season will always remain a source of concern to the curer. (2) In consequence of the great preparations already referred to, together with the increase in the number of curers, the great demand, and latterly the high prices—which the foreign markets did not warrant—were largely due to local competition. (3) The combine among the continental buyers and importers was due to the losses which they had sustained on the early goods in previous seasons, consequently the demand in June was not so satisfactory as during the corresponding month in 1913. Curers, however, were so dissatisfied with the attitude of the buyers that they dispatched several cargoes and agents of their own to effect sales. (4) Up till the season of 1914 strikes among the gutters and packers were of rare occurrence. The demand was chiefly for an extra £1 of arles. Notwithstanding that curers had legal agreements with their workers, they were helpless, owing to the perishable nature of the goods, and as practically the whole of the labour connected with herring curing in the Shetland and Orkney Islands had to be imported from the mainland, there was no

alternative but to meet the demand. (5) The abrupt termination of the fishing on the East Coast in the beginning of August seriously affected the industry. Fishermen, hired hands, and fishworkers found themselves suddenly out of employment. Several cargoes of herring which were on passage to Russia and Germany at the outbreak of hostilities did not reach their destination, and although advantage was taken of neutral ports in Sweden and Norway, and the fish exposed for sale, unsatisfactory prices were obtained. Moreover, curers had numerous consignments in Germany for which up to the end of the year no account of sales or cash had been received.

Northumberland.

On the Northumberland coast, over which the Board still have jurisdiction, the herring fishing of 1914—so far as curing is concerned—was the most unsuccessful for the last 45 years. The total cured, exclusive of Eyemouth, was 3400 barrels, as against 108,000 in 1913. At the commencement of the season the Eyemouth boats prosecuted the fishing at several of the more northern stations, where fair earnings were secured. Since the fishermen of the district have adopted motor installation for their boats and have gone in for steam drifters they have become most enterprising. The season at East Anglia was a most remunerative one to them, the earnings of several of the steamers ranging from £560 to £2700.

Leith and Anstruther.

The fishermen of Leith and Anstruther prosecute the herring fishing from other districts, the former working chiefly from North Shields, and the latter from stations north of Aberdeen. A marked improvement took place in the landings at Montrose, as compared with the previous season, but the quantity fell considerably short of the average of the past 10 years. As a herring fishing station Aberdeen seems to make little progress. Not until the fishing at the more northern stations—particularly Shetland—is about finished do the boats congregate at the ports in any great numbers.

Peterhead to Wick.

So far as the landings of herrings are concerned, Peterhead at present holds the premier place on the East Coast, and this is due to the large fleet of steamers employed and its proximity to the fishing grounds. In the total landings there is a decrease of 50,000 crans, and in value of £195,000, as compared with the previous year. This shortage was entirely the result of the abrupt termination of the fishing. The prosperity which attended fishing operations in 1913 had induced about a dozen men who were successful fishermen to try their fortune as fishcurers. The speculation to them must have been a serious loss, as doubtless a large portion of their capital would be required for the necessary plant, etc. In the catch of herring at Fraserburgh there was a decrease of about 25,000 crans, and £169,000 in value, as compared with the previous year. With the improved harbour accommodation there was every prospect of record landings, but the shortage is entirely due to the stoppage of the fishing owing to the war. On the Banff and Moray coasts the landings of herrings were chiefly by boats home for the week-ends to replenish their stores. Both the winter and summer herring fishings prosecuted from Wick were attended with a fair measure of success. Early in the year a large shoal of herrings was located on the north-west of Sutherland, from which grounds heavy hauls were obtained. The shoal was so dense that one of the steamers employed secured a haul of 240 crans, estimated at 240,000 herrings, which is the largest individual catch ever delivered at the port. Not-

withstanding the high prices in July, the season was not a remunerative one to either fishermen or curer.

Orkney and Shetland.

The results obtained in the Orkney and Shetland Islands exceeded those of the previous year by close upon 126,000 crans, but owing to the poor quality and low prices in the early part of the season there is a decrease of £95,000 in value. In the former district Stronsay is the principal fishing centre, where in view of improved harbour accommodation, and its close proximity to the fishing grounds, a considerable fleet of both steam and sail-boats had congregated. To meet the requirements of the trade large sums of money have been expended in erecting new curing stations and in extending and improving existing ones.

West Coast.

The value of the fisheries of the whole West Coast of Scotland, from Cape Wrath to the Solway, was £383,773, as compared with £521,244 in 1913. Stornoway and Mallaig are the principal fishing centres. Early in the year immense shoals of herrings made their appearance in the Minch, with the result that the landings secured by a comparatively small fleet exceeded all previous records. Although only nominal prices compared with those paid in December were obtained for the fish, good earnings were secured not only by the stranger boats engaged but also by the local craft. Besides the quantity cured, a large proportion of the catch was kippered or sent fresh to the southern markets. Although West Coast winter-cured herrings do not command in the continental markets within 50 per cent. of the value obtained for herrings cured in summer, yet close upon £68,000 were paid over to the fishermen for their season's catch. The value of the winter and summer herring fishings combined amounted to upwards of £122,000, and although the great bulk of this money went into the pockets of the East Coast men, the community as a whole shared in the prosperity. Owing to its close proximity to the fishing lochs on the south side of Skye, Mallaig has within recent years made considerable strides as a fishing centre. During the past year there were landed of herrings from Loch Bracadale alone 50,046 cwts., valued at £25,333, practically the whole of which was earned by East Coast fishermen. The herring fishing at Castlebay did not come up to expectations, notwithstanding the large number of boats employed. The value of the catch shows a decrease of 73·6 per cent. as compared with the season of 1913. Fortunately, the herrings for which high prices were paid were shipped to Petrograd before the outbreak of the war. Neither in Loch Carron nor Loch Broom districts was the herring fishing of a remunerative nature.

Clyde.

Compared with the previous year the herring fishery in the five districts of the Clyde area show a decrease of 41,276 crans, and £58,372 in value. The best results were obtained by the Campbeltown fishermen. In Rothesay, Inveraray, and Greenock districts the fishing was practically a failure. Fair catches were, however, obtained by several of the boats hailing from these districts, working on the Kintyre and Ayrshire coasts. Various theories are annually put forward by the fishermen of Lochfyne district, in explanation of the absence of herrings from the loch, but the most recent is that the noise of the propeller of the motor-boats scares the fish away. Only moderate results attended the herring fishing in

Ballantrae district. In value there is a decrease of upwards of £16,000 as compared with 1913. The principal fishing ground was Loch Ryan, where the local fishermen are much opposed to the method of capture (seining) used by the stranger craft in these waters.

Except in Campbeltown and Ballantrae districts, the white fisheries of the Clyde are a negligible quantity. At the former place, several East Coast boats, hailing chiefly from Montrose, gave an impetus to the line-fishing, and did remarkably well, with the result that a number of local men were induced to prosecute the fishing also, while at Stranraer there were 4 East Coast steam liners employed, and their earnings, for a period of from 6 to 8 weeks, ranged from £500 to £800.

Shell Fisheries.

In the value of the shell fisheries there is a decrease of £7331 as compared with 1913. Of the various kinds secured, oysters and lobsters show the greatest decrease in quantity and value. In many of the southern markets lobsters of good average size and quality realised only nominal prices, and this was largely due to the absence from the country on military service of the class by whom these crustaceans are consumed. During the last quarter of the year lobster fishing was practically suspended, and none was stored for exportation.

Barrel Making.

In the number of barrels manufactured there is a decrease of 56,000 wholes and 88,000 halves, as compared with 1913, the output during the last quarter of the year having been exceptionally small. Up to the end of July the industry was in a prosperous condition, and coopers made good wages. Owing to the large stocks of empty barrels on hand, and the small number required for the East Anglian fishery, the outlook for the current year is not promising. On the outbreak of hostilities a number of men connected with the trade volunteered for military service, and others proceeded south, and found employment in the lead factories and at various other trades. At Aberdeen two new barrel factories have been erected, at a cost of £11,000, in addition to the existing one, which employed close upon 100 hands. But for the amount of machinery now utilised in the manufacture of herring barrels, the requirements could not be met. During the year several cases of the manufacture of defective stave wood into herring barrels were reported, and the curers cautioned as to their exportation if filled with herrings. In 1910 the attention of the trade was drawn to this matter by circular.

Owing to the short duration of the fishing, and the decrease in the catch, hired hands, fishworkers, and carters did not reap the same results as in 1913. Some thousands, however, of the former, connected with the R.N.R., were called up for service, and so relieved the depression, which otherwise might have prevailed owing to their poor earnings.

It is gratifying to state that in connection with the fisheries there were six fewer lives lost than in 1913.

The estimated loss of boats totally lost or damaged was £37,500, while the loss of fishing gear was £86,000. About four-fifths of the latter amount is referable to the districts of Leith, Aberdeen, and Peterhead. In many of the other districts the loss is no more than normal.

J. SKINNER,

General Inspector of Sea Fisheries.

FISHERY BOARD FOR SCOTLAND,

EDINBURGH, 4th February 1915.

ASSISTANT INSPECTOR OF SEA FISHERIES.

In the five fishery districts on the West Coast of Scotland, from Oban to Stornoway, and in the eight on the north-east, from Shetland to Buckie, the results for 1914 vary to a great extent. The conditions which prevailed after the outbreak of the war—although not so unfavourable for the West Coast as the East—disorganised the industry as a whole. Fortunately, the summer herring fishing at the principal centres was well advanced by the beginning of August, otherwise the results would have been disastrous. Curers and fishermen generally were in a good position financially, and had they been able to participate as usual in the English herring fishing during the autumn months, the loss sustained would have been less severely felt.

Practically all the young men belonging to Lossiemouth who were not in the R.N. Reserve unhesitatingly joined the naval and other forces. Very few of the Buckie district fishermen were in the R. N. Reserve, but on realising the need for more men, large numbers joined the Naval Brigade, and are under training in London. The less important districts all contributed fair numbers to the various forces. The districts of Stornoway and Shetland, however, supplied the largest numbers. It is further gratifying to be able to state that large numbers of fishermen and others belonging to the northern districts found remunerative employment in connection with naval requirements on land and sea.

Means of Capture.

No orders have been placed for fishing craft of any kind since the month of August, and to fishermen and others involved in steam drifters the prospects for the future are not very encouraging. For a number of years in succession prices for herring ruled high, consequent on the increased consumption of the cured article on the Continent. Experience proves that for a herring fishing season of from 14 to 16 weeks an average catch of at least a 1000 crans per steam vessel, at an average price of one pound per cran, is required to make the season a financial success.

Within recent years the catching power has been enormously increased, yet it requires more intelligence, energy, and perseverance on the part of fishermen to maintain a good average catch in northern waters. In view of what has taken place on the Continent there is therefore every prospect of the industry having much to contend with for some years to come.

General Results.

In the districts of Stornoway and Fort-William marked success was obtained at herring fishing, in the former during the early months of the year, and in the latter during the month of December. In the other three districts on the West Coast herring fishing was a partial failure. In the three most important districts on the north-east coast, viz. Shetland, Orkney, and Wick, the value of the catch did not exceed £600,000, being a decrease of £151,000, as compared with the preceding unsuccessful year. Those fishings are to a great extent carried on by fishermen resident on the south shores of the Moray Firth, who engage in the various herring fishings on the Scottish, English, and Irish Coasts, and are from home during the greater part of the year.

During the early months of the year marked success was obtained at great line fishing on the West Coast by a limited number of steam vessels operating from Mallaig. Good success was also frequently obtained

in Shetland waters by steam craft, who landed the heaviest of their takes at Aberdeen. From Cape Wrath southwards and in the Moray Firth little or nothing has been done at great line fishing for a number of years.

Small line, or inshore fishing, from the various creeks in the Moray Firth was less productive than in the preceding and most unsuccessful year on record. In the early and closing months of the year, fair success was occasionally obtained, but throughout not to such an extent as to compensate for the amount of labour and expense incurred, or to induce men who could find employment on shore, or otherwise, to abstain from doing so. Apart from the large numbers of young men who joined the naval and military forces, others found employment on shore. The decrease in the landings cannot altogether account for the partial failure of small-line fishing in the Firth; other forces have been at work for a number of years—notably the great success of the various herring fishings, which have done so much to improve the lot of fishermen, and relieve the whole household from the heavy labour incidental to small-line fishing. Bait of all kinds has become more expensive and difficult to procure, especially mussels.

The shell fisheries of the districts under review vary little annually, and until the outbreak of the war were prosecuted with usual success. Thereafter the demand, especially for lobsters, slackened, and accounted for a shortage in quantity and value at the close of the year. In 1913 nearly 540,000 lobsters, valued at £29,878, were landed, the total value of all kinds being £38,410. The best success is always obtained on the West Coast, and in the districts of Wick and Orkney. For Shetland and the Moray Firth districts the total value of all kinds amounted only to £1473.

Cod-net Fishing.

In the districts of Buckie and Findhorn cod net fishing was prosecuted with encouraging success, in the former by 9 steam, 3 motor, and 60 sail, and in the latter by 32 steam, 1 motor, and 34 sail craft. Operations were practically confined to the months of February and March, which is the period when cod congregate in the Firth to spawn. For the two districts the total landings amounted to 32,669 cwts., valued at £17,460, being a decrease of 10,511 cwts., and £2853 respectively, as compared with the corresponding period in 1913. At the various places on the north shores of the Firth the catch was comparatively light. Prices generally ranged from 1s. to 1s. 6d., the extreme range being from 10d. to 3s. per fish. The bulk of the catch was immediately despatched to market in a fresh state, a much smaller portion than hitherto being split and cured for exportation.

Shetland.

In Shetland districts extensive preparations were again made for the summer herring fishing, especially at Lerwick, but at no period of the season was the fleet so large as in 1913. Up to the close of July there was a decided improvement in the catch, the quantity landed, and the average price per cran during May, June, and July were respectively as follow:—May, 70,876 crans, 14s. 3d.; June, 147,608 crans, 23s. 10d.; July, 47,370 crans, 31s. 10d. For the month of August the landings amounted only to 470 crans, against 25,677 crans in 1913, and 31,218 crans in 1912. Operations were commenced early in May, and by the second week in June a fleet of 530 steam and 170 sail vessels was at work. Although the catch for July was much heavier than in the preceding year, the fishing had become so light and partial by the end of the month that the steam fleet had left for the East Coast, and owing to the war did not

return as they otherwise might have done. As the season advanced and quality improved, the demand increased, prices for the cured article in May and June ranged from 18s. to 32s., and for July from 22s. to 37s. per barrel. Throughout the season parcels of superior matje cure realised from 26s. to 40s., and during the first few days in August 29s. to 46s. per barrel for hard cure, according to selection and quality. Thereafter the demand ceased except for small parcels of superior quality for America. For those sold the average price for the season was 25s. 6d. per barrel, against 33s. 9d. in 1913. When war was declared a considerable portion of the catch on hand and on the Continent was for sale. On these cures would not lose so heavily as in other districts which consigned more parcels to Germany. The estimated numbers of district fishermen and others on naval and military duty being about 1000, should do much to compensate a class of men who are irregularly employed during the greater part of the year.

Fair success was obtained at line fishing during the first four months of the year. Contrasted with the corresponding period in 1913, there was an increase of 7434 cwts., and £4149 respectively. As usual line fishing was practically suspended during the summer herring fishing, and for the remainder of the year there was a considerable shortage in the catch. A number of small motor boats fishing from Scalloway, accounted for a large portion of the haddocks landed. Steam liners fishing off Shetland frequently landed light takes of great line fish—going direct to Aberdeen with the heaviest takes. About 12,000 cwts. of haddocks were landed, including 8000 cwts. of mackerel, and 17,000 cwts. of saithe caught during the summer months by the herring fleet, the total of all kinds of fish other than herring amounted to about 60,000 cwts., being a slight increase on the preceding year.

Orkney.

In Orkney district herring fishing was practically confined to the months of June and July. During that period the catch was 88,000 crans, against 6400 for the other months of the year. The calling up of the R.N. Reserve on the 4th August disorganised the fleet of fishing craft to such an extent that operations had to be suspended about a month earlier than usual. Unfortunately this occurred when the fleet was at its full strength, and when the best results were being obtained. Had the fishing been continued throughout the month of August there is every reason to believe there would have been a record catch, or one at least equal to that of 1912, which yielded 154,600 crans.

As in the preceding year, extensive preparations were made for curing, and in the number of vessels engaged there was a slight increase. The bulk of the fleet consisted of Scottish and English steam vessels, fully 90 per cent. of the season's catch was landed at Stronsay, against 85 per cent. in 1913, and 80 per cent. in 1912. At the other places, viz. Kirkwall, Burray, and Holm there was a slight decrease in the catching and curing power. Weather conditions were more favourable for steam than for sail vessels, the latter being frequently so late in arriving as to seriously depreciate the value of their takes, for the season their gross earnings ranged from £100 to £400, as compared with £400 to £1000 for steam vessels.

As in the preceding year the district fishermen did very little at line fishing, haddock, whiting, and all other kinds of small line fish having been exceedingly scarce in Orkney waters. Fair quantities of small cod were caught with hand lines, and sillock or young saithe were at different periods of the year in great abundance—close on £1000 worth of these being landed.

Wick.

In Wick district exceptional success was obtained at herring fishing during the first quarter of the year. As in the preceding year operations were conducted off the north-east coast of Sutherlandshire, and a total of 45,972 crans was landed, against 13,390 crans in 1913. Previous to 1890 large quantities of herrings and white fish were landed at Wick from the Moray Firth during the winter. These grounds eventually became unproductive at that period of the year, and the discovery of herrings off the north-east coast of Sutherlandshire during the winter months may be placed to the credit of steam fishing vessels.

The summer herring fishing was conducted with marked success from the close of May till the beginning of August. Thereafter the calling up of the R.N. Reserve disorganised the whole industry, and the fishing was rapidly brought to a close much earlier than usual. Contrasted with the preceding year the catch for August alone showed a decrease of 37,000 crans in quantity and £44,000 in value. When war broke out prices for the fresh and cured article ruled high, and there was every prospect of a profitable season to all interested. Unfortunately there was a considerable portion of the season's catch on hand, and for sale on the Continent. On these curers would lose heavily. To fishermen, generally, the season was also unprofitable, especially to many of those on sail craft, the earnings of which ranged from £50 to £300. The majority of the steam vessels grossed from £400 to £700, others £800 to £900, and £1150. The partial stoppage of the English herring fishing threw a large number of shore workers out of employment. Many of the coopers, fishermen, and others were, however, well employed during the remainder of the year in connection with naval requirements in northern waters. As in other districts quite a number of young men joined the naval and military forces.

Stornoway.

A total of 111,079 crans of herrings was landed in Stornoway district during the first quarter of the year, being an increase of 6358 crans on the unprecedented catch for the corresponding period in 1913. Prices, however, ruled lower, the average per cran being 12s. 4d. against 16s. 7d. A large portion of the catch was kippered and freshed, and about 10,000 barrels were cured ungutted—7000 of which were shipped to Yarmouth and 3000 to Aberdeen to be smoked and dried for the home and Mediterranean trade. As usual the bulk of the catch was cured gutted for Russia, Germany, and America. These winter herrings are not highly appreciated in a pickled state, and notwithstanding the low prices for the fresh fish, curers generally had an unprofitable season. Those engaged in kippering and freshing had no reason to complain, and but for the high freight rates—which often exceeded the value of the fish—a much larger portion of the catch could have been disposed of in the home markets.

During the spring and summer months to the close of August a total of 31,842 crans was landed, at an average price of 27s. 10d. per cran. The best results were obtained in July, the total being 14,623 crans, at an average price of 34s. per cran. The July fish were of superior quality, and several small parcels which reached the Continent before war was declared realised high prices. Thereafter the demand ceased, and several vessels on the passage out with fish of July cure were detained at Copenhagen, where at least one cargo had to be sold for less than the cost of the empty barrels. During the last four months of the year the fishing was irregularly prosecuted by a small and varying fleet, but yielded a total

of 20,977 crans, the bulk of which was kippered and freshed, the balance being cured for the home and American markets.

In the quantity of white fish caught there was a marked decrease, partly accounted for by so many men being withdrawn for naval and military duty. As in the preceding year mackerel and saithe were plentiful. The former realised 3s. 5d. and the latter 3s. per cwt. Cod averaged 7s. 4d.; ling, 7s. 5d.; haddock, 8s.; eel, 9s.; and skate, 3s. 7d. per cwt. In the quantity and value of shell-fish there was a considerable decrease, for which the conditions which prevailed on account of the war were responsible. In no other district in Scotland were so many men called up on the outbreak of the war. This, however, had less effect on the fisheries of the district than might be expected, as the majority of the men called up are otherwise employed during the greater part of the year, and the herring fishing is practically conducted by East Coast fishermen, curers, and shore workers. Doubtless the resident curers and a number of shore workers will be adversely affected, but with so many men in regular pay it is permissible to infer that their relations would be as well provided for as under ordinary conditions.

Barra.

The herring fishing in Barra district is of a fluctuating character, and during the year 1914 the catch was the lightest for a number of years. Contrasted with the preceding year there was a decrease in the quantity and value of 19,000 crans, and £58,000 respectively. About the same number of vessels were employed as in the preceding year, and the bulk of the catch was accounted for during the months of May and June. As usual the steam and large sail craft from the East Coast were the most successful. The district fleet consisted of small sized sail boats, and a few auxiliary motor boats of a similar size. The fishing being a partial failure on the inshore grounds, the average earnings of the sail only amounted to £50, against £100 for the motor craft. In 1913 the sail boats averaged £100, and one motor craft engaged grossed £540. The white fish fisheries of the district were less productive than usual, and did very little to augment the year's earnings. In the value of shell fish, chiefly lobsters, there was also a marked decrease. When war was declared a number of young men joined the forces, others found employment about Glasgow and in the merchant service. The girls employed in connection with the various herring fishings returned with reduced earnings, and could find little to do during the remainder of the year.

The season's catch consisting of about 19,311 barrels—valued at 48s. per barrel—was cured and consigned unsold, chiefly to Russia and Germany. When war was declared there was still a small portion to sell and on these curers would lose considerably. Contrasted with the disastrous year 1870 the loss is insignificant. In that year the catch from Barra district was the heaviest on record, and a very small portion of the season's cure had reached Germany before war was declared, with the result that curers generally lost their all. With a few exceptions fishermen were paid in full. Curers who realised in time the disastrous state of affairs emptied the balance of their stock into the sea, and by doing so saved their barrels and expenses incidental to exportation.

Loch Broom.

At no period of the year did the crews engaged in herring fishing in Loch Broom district meet with a fair measure of success. Light takes were occasionally got during the summer and autumn months,

for the year the catch was under 4000 crans, at an average price of 14s. 8d. per cran. All over there was a slight decrease in the quantity of white fish. Cod-net fishing carried on from Gairloch during the spring months was prosecuted with good success. In ordinary times the annual value of the shell fisheries of the districts is about £4000, chiefly for lobsters. Up to the close of July there was a slight increase, as compared with 1913, but thereafter the demand slackened, and at the close of the year there was a shortage in the catch of about 17,000 lobsters.

Loch Carron and Skye.

As in the preceding year, poor results were obtained at herring fishing in Loch Carron and Skye district. Although more or less were landed in each month of the year, the total amounted to only a little over 7000 crans. The best results were obtained in January and September. The curing stations at Uig were occupied during June and July, and fair success was obtained until war broke out. Thereafter curing was discontinued, and fishermen left for places on the mainland, chiefly Mallaig. Towards the close of the year herrings were found in great abundance in Loch Bracadale, but most of the catch was landed at Mallaig and accounted for in Fort-William district. In the quantity and value of white fish there was a marked increase, and mackerel were also plentiful. Considerable quantities of hake and saithe were caught with nets, the former realising 29s. 7d. per cwt., and the latter 4s. 3d. per cwt. Mackerel, although invariably of good quality, were occasionally unsaleable, and prices ranged from 6d. to 14s. per cwt. The average price for cod and haddocks was 9s. 4d. and 10s. 9d. per cwt. respectively. Until the outbreak of the war there was an increase in the landings of shell fish, but at the close of the year there was a decrease as compared with the preceding year.

Fort-William.

The fisheries of Fort-William district continue to prosper under the improved methods of fishing by steam and motor craft, and the excellent facilities provided at Mallaig and Oban for the prompt despatch of the catch to the southern markets. During the year 38,350 cwts. of white fish were accounted for. Of these 28,420 cwts. were landed at Mallaig, 7394 cwts. at Oban, and the balance at the various creeks in the district. The produce of the herring fishery amounted to 148,046 cwts., nearly all of which were landed at the two centres, chiefly at Mallaig. Practically all the white fish and the bulk of the herrings were forwarded to market in a fresh state. A small portion of the catch was kippered, and 6329 barrels were cured for exportation. The fishing grounds within reach of the two centres extend from Cape Wrath to the Mull of Galloway, the extreme limits being resorted to by steam liners only. During the spring and summer months fair success was obtained at herring fishing from Mallaig southwards. Towards the close of the year very heavy takes were brought in from Loch Bracadale. For the month of December alone the catch was 47,648 cwts., valued at £23,894. The best results at line fishing were obtained off the Ayrshire coast, where further developments are anticipated in the future. Owing to the rocky character of the sea bottom on the West Coast generally, eel, skate, and ling are most plentiful. During the early months of the year several crews gave special attention to line fishing for hake, and were most successful in a small area of deep water on the east side of Skye. The bulk of the white fish was landed during the first four months of the year. Herring fishing in the lochs of the district was again a failure, and there was

a further decrease in the number of districts, boats, and fishermen. The quantity and value of the shell fisheries, which are of considerable importance to local fishermen, were well maintained.

Moray Firth.

Occasional trials were made at herring fishing in the inshore waters of the Moray Firth, principally from the districts of Findhorn and Buckie, but the results obtained were perhaps the poorest on record.

In the Inverness Firth small-sized herrings were fairly plentiful during the closing months of the year. For these there is now a good demand for tinning at 16s. to 20s. per cran, and occasionally 35s. to 45s. per cran was paid for the London market. There was a welcome revival of the sprat fishing in the Firth, and for these there was also a good demand for London, and for exportation to Sweden and Norway. Over 5000 crans of sprats and 2200 crans of herrings were landed, of a total value of £7516. The earnings of the fishermen engaged ranged from £25 to £75 per man.

The patent slip and boat-building yard at Inverness continue to be appreciated by fishermen, and are proving serviceable for Admiralty work.

WILLIAM JEFFREY,

Assistant Inspector of Sea Fisheries.

FISHERY OFFICE,

INVERNESS, 9th January 1915.

II.—EAST COAST.

Eyemouth District.

While some features of the fishing of 1914 may be of interest, the one event which overshadowed all others was the Declaration of War with Germany on the 4th of August. The summer herring fishing was, notwithstanding the war, continued for about the usual time. Under the circumstances the results for the year may be considered as fairly good. The returns exhibit a decrease of 17,275 cwts. in quantity, and of £17,445 in value, from 1913. Fortunately for curers few herrings were cured for export when war was declared, so that their losses were small. Fishermen earned considerably less than in 1913. Those who prosecuted the Irish herring fishing had only slight success, but good results were obtained by those who were at the English fishing. Small-line fishing exhibited a considerable increase both in quantity and value on the previous year.

The slight changes in the means of capture in the English section of the district do not call for any special remark, except that the tendency has been downwards for several years past. Important changes have taken place in the Scottish section. The fleet of steam drifters was increased from 10 to 19; and motor boats from 44 to 54, of which 48 are large herring boats. There were also large increases in netting and lines. The total value of boats and fishing gear is £120,041, an increase of over 38 per cent. on that of 1913. There is no likelihood of any additions being made this year either to the steam or motor fleet.

The winter herring fishing was prosecuted with better results than it has been for the last seven years, the 22 local boats landing 2810 crans. The average price was 23s. 10d. per cran. Other 14 crews had fair success at the Firth of Forth and Stornoway fishings.

The summer herring fishing began as usual at North Shields in the

beginning of May, and at Eyemouth and Blyth a couple of weeks later. These ports do a considerable trade in kippering and freshing. By the end of the month a few boats were operating from each of the remaining ports. Good results were obtained during the first two months, and the prospects of a successful season were considered good, the catch at one period being largely in excess of that for 1913. Unfortunately, by the end of June this state of matters was reversed, and the downward tendency continued all through the season. The increase in the early part of the season was, no doubt, due to the larger number of boats fishing, as the decrease in the latter part may be ascribed to the smaller number; but at the same time the average per boat was much lower than in 1913. The catch was also adversely affected by the danger from mines, which prevented a number of boats fishing on certain grounds which they usually frequent. While the landings at all the stations exhibit decreases from 1913, that at Blyth is the most serious, the catch at that port being only a little over one-fifth of the previous year's. Eyemouth was the least affected, although a week's fishing was lost at this port partly on account of Admiralty orders, and partly through a misunderstanding among the fishermen. The season practically closed in the first week of September, but 11 steam trawlers continued operations from North Shields till the end of October, landing a total of 4398 crans, of the value of £6104. Including the trawled herrings, the total catch for the district was 117,684 crans, as compared with 244,219 for the previous year. Prices ranged from 3s. to 108s., with an average of 22s. 5d. per cran, as against 28s. 3d. in 1913.

Although the quality of the early herrings was about the same as in 1913, curers last year restricted their operations in view of the large stocks of these herrings held by the northern curers, and the consequent unpromising outlook. None was cured after war was declared. The number of barrels cured was abnormally small. War was declared at a time when curing for export usually becomes general throughout the district, so that late curing stations, such as Blyth and North Shields, were most affected in this respect. Of the herrings cured fully half was cured at Eyemouth. The principal fishing grounds were from 10 to 20 miles N.E. and S.E. of the Farne Islands.

Besides the 1303½ barrels of herrings exported direct, 765 were sent coastwise, and about 3870 by rail to Leith for exportation to the Continent; also 743 direct to Norway. About 3000 were disposed of in the inland markets, viz. Leith, Glasgow, Leeds, Manchester, London, etc. The 1303½ referred to were Yarmouth herrings exported in January.

The small-line fishing was prosecuted with fair success, more especially during the last three months of the year, and exhibits a considerable increase both in quantity and value on 1913. Trials were made on the offshore grounds but without success, and the fishing was for the most part carried on from 2 to 4 miles off the coast. Few takes exceeded 6 boxes of all kinds. Of the totals, haddocks represented 40 per cent. in quantity, and 53 per cent. in value. Prices for haddocks ranged from 10s. to 72s. per box of 6 stones—a record price. The average per cwt. was 22s. 5d., as compared with 28s. in 1913.

There was a considerable decrease in the value of the shell fisheries, due partly to fewer boats being employed. Crabs realised from 2s. to 4s. per score.

Barrel-making constituted a record for the district. The demand was caused by the sale of stock for the English fishing of 1913. The war affected the output to a small extent, but as a rule few are made during the latter part of the year. As curers have large stocks on hand, few barrels will be made this year.

As has been the case for several years, the work of the boatbuilders consisted mainly of the alteration of boats having motors installed. The 7 crews at the Irish herring fishing had only slight success, the average earnings being £187, as compared with £519 in 1913. One of the boats was damaged to the extent of £100. Owing to the danger of mines, none of the motor boats proceeded to the English autumn fishing. Of the 16 steam drifters at this fishing, 9 returned after the German raid, with average earnings of £544; while the 7 which returned in December had £1434, the highest being £2700. One boat was slightly damaged by a mine.

A fisherman lost his life through falling overboard in Eyemouth Bay.

TABLE showing the Number of Boats employed in each Week during the Herring Fishing Seasons of 1914 and 1913; the Weekly Landings, and Prices obtained for Fresh Herrings.

Week ended.	1914.					1913.				
	Number of Boats.			Total Catch for Week.	Average Price for Fresh Herrings.	Number of Boats.			Total Catch for Week.	Average Prices for Fresh Herrings.
	Steam.	Motor.	Sail.			Steam.	Motor.	Sail.		
				<i>Crans.</i>	<i>Per Cran.</i>				<i>Crans.</i>	<i>Per Cran.</i>
16th May	132	47	11	5,142	19 0	58	34	14	2,293	19 11
23rd "	127	50	18	5,144	21 10	61	40	18	3,332	19 7
30th "	117	51	20	7,701	16 7	64	44	21	5,666	15 2
6th June	114	50	30	9,685	14 8	59	41	36	5,233	19 0
13th "	107	47	24	5,672	26 5	61	41	42	8,615	23 6
20th "	116	49	32	5,316	29 8	76	39	35	12,711	15 5
27th "	113	49	38	6,184	23 0	129	42	60	13,770	18 11
4th July	127	48	38	9,099	15 9	142	45	80	22,756	17 10
11th "	138	52	45	13,018	16 7	173	45	71	13,109	30 11
18th "	161	50	34	7,657	21 11	359	52	91	27,433	33 1
25th "	190	65	42	9,976	20 11	370	51	103	21,503	35 2
1st Aug.	199	58	46	9,160	28 10	340	61	103	28,508	32 5
8th "	168	57	56	8,682	27 10	382	42	72	20,642	34 0
15th "	27	60	39	3,215	27 9	213	38	99	11,164	37 7
22nd "	91	51	34	2,856	36 4	182	39	86	11,566	35 6
29th "	114	56	42	2,003	32 5	170	34	63	11,641	30 3
5th Sept.	40	51	20	1,231	34 10	66	23	22	7,778	30 7
12th "	8	..	..	260	40 5	48	26	24	6,039	28 3

The effects of the war on the fishing industry in 1914 may be briefly stated.

As regards the fishermen, the slight restriction on the herring fishing only affected them to a small degree, except that some 38 crews were deterred from prosecuting the English autumn fishing, on account of the danger from mines. Line-fishing has been, and continues to be, prosecuted as usual. As the war began at the time when the curing of herrings for export usually becomes general throughout the district, this branch of the industry was practically a blank.

The trade in kippering and freshing proceeded as usual, so that most of the women workers made a fair wage, considering the loss in gutting and packing. Of those engaged solely in gutting and packing, the number was very small, as most of the principal curers did not commence operations. The loss of work at the English herring fishing affected all classes, and would be more especially felt by coopers and women. Few coopers

are employed at their usual work, nor is there any prospect of it. A few are idle, but most are at work at other places, while 13 have joined the army. As regards the future prospects, one can only say that they are anything but bright. One curer says that he does not intend to engage any women for the summer fishing, and this points to the general trend of the outlook for 1915.

DAVID ROSIE,
Fishery Officer.

FISHERY OFFICE,
BERWICK, 13th January 1915.

Leith District.

Although there were some unusual circumstances in connection with the fisheries in 1914 the whole result was successful, the catch and earnings being greater than in the preceding year. The principal branches of the industry here, in order of their importance, are, steam trawling, drift-net, line, sweep-net and crab fishings. The aggregate catch and value for the year were 358,594 cwts., and £232,520, showing an increase of 12,222 cwts., and £10,682 in comparison with the preceding year's returns. In the steam trawling industry 71 vessels were employed, being an increase of 6 on the fleet of the previous year, but 27 were employed by the Admiralty for the last four or five months of the year, so that their withdrawal, and the restrictions latterly put upon the movements of the vessels, seriously affected the year's results, which would, to all appearance, have been otherwise the most successful ever attained. During the first half of the year the trawlers were very successful, so that, notwithstanding all the subsequent hindrances, the aggregate catch and its value were only 13,823 cwts., and £810 less than in the preceding year. The trawlers continued work on their regular and long-established system; about 50 of the vessels worked about 5 to 60 miles seaward of the May Island, and usually made two landings per week, while the remainder made weekly trips to grounds about 30, 50 to 100 miles N.E. and E. off Buchan Ness. The catches obtained were as successful as ever, showing in general no decrease from the long record of prosperity which has favoured their operations. The bi-weekly landings from the nearer areas usually ranged from 40 to 140 boxes, and from the distant northern grounds from 100 to 260 boxes. The heaviest single catch of the year was 568 boxes.

The most noticeable feature of the trawl catches this year was the extraordinary large quantities of very small haddocks—now generally called "seed haddocks"—which were obtained in all areas both near and far.

In a year such as this, when the regular course of the industry was thrown out of gear, it is needless to make detailed comparisons of the catch with that of preceding years, but there is no reason to doubt that in full scope the trawling industry is as prosperous as ever. In the preceding year's report mention was made of the sharp rise in value of all kinds of fish, but prices were even higher this year, mainly owing, no doubt, to the light supplies which for well known reasons were brought in during the latter half of the year.

The outbreak of the war and its attendant troubles had a serious effect on the local fishing industry in all its branches during the last five months of the year. Its most serious effect was the collapse of the herring fishing, from which a large proportion of the fishermen derive their principal income. The local herring fleet of close on 70 steam, motor, and sail

boats was pursuing the fishing in August, for the most part at the Northumbrian ports, with every hope of a successful season, when the outbreak of the war at first curtailed the operations and latterly suspended them entirely, so that the men earned only a few pounds, and as none of the local craft went to the Norfolk coast fishing, that hitherto most remunerative branch was completely lost to them as well. Then, as fishing was latterly prohibited in the Firth of Forth, the December herring fishing in home waters was also lost. The herring curers, not a numerous class in this district, lost very heavily also, but bore it without complaint. The cessation of the herring fishing had, however, a stimulating effect on the trawl and line fishings for at least three months after the war was declared; the trawlers were then actively at work, and obtained good supplies of fish. The characteristic resourcefulness of Scottish fishermen was exemplified in the activity with which they turned to line fishing in the home waters when deprived of the opportunity to continue the pursuit of the herring. For several months this was carried on with fair success, and as, owing to the general lightness of supplies, prices advanced to about double the normal rates, good earnings were obtained.

The winter herring fishing in the Firth of Forth—there is practically no summer fishing here—was the most successful in living memory. Its principal season was from January to March, but the heaviest catches were obtained during February. In all, about 76 yawls were employed in it. The year's catch and its value, for this district, was 9064 crans, and £13,041, being an increase of 5485 crans and £6044 in comparison with the preceding year's results. The herrings came quite close to the shore, and for three weeks in succession some of the most fortunate of the yawls earned as much as £120 a week. The herrings were of good quality, and there never was a better demand; early in the season the prices ranged from 50s. to 62s. per cran, and the season's average price was about 30s. A large proportion of the catch was iced and sent direct to Hamburg.

For the third year in succession the sprat fishing failed. The catch in the Forth was 1294 crans.

Line-fishing as carried on by the yawls is not comparatively of much importance, the mainstay being the herring fishing. It affords, however, a small daily income during the spring and winter, but it appears to be slowly declining. Within the past two or three years 20 of the yawls have had motor engines added to their equipment.

The crab, lobster, and clam fisheries are fairly remunerative here; they are carried on principally from Cove, Dunbar, and Cockenzie. The yearly value is usually about £5000, but owing, no doubt, to the restrictions put upon the industry generally during the closing months of the year, the value of this year's produce was about £500 less than usual.

Details of affairs at the creeks show a decrease of 46 sail boats since the preceding year. This was mainly due to the discarding of some of the older herring boats; boats that had served well their day and generation. When I expressed to a local fisherman my serious concern for the disappearance of so many boats, he facetiously replied, "There is no need to be downhearted, no; the boats have earned more gold in their time than they could carry." Although this was, of course, an exaggeration, it was good to have the assurance of past successes, and although the boats have not been immediately replaced, it is to be hoped their places will be filled in the brighter days near at hand by the newer type of steam and motor vessel. The herring fishing fleet of the district at present comprises 14 steamers, 10 large motor, and 42 sail boats, with, of course, the addition of about 70 yawls that carry on herring fishing in the home waters as well as lining.

During the first half of the year the usual extensive trade in the export

of herrings and other kinds of fish, which is provided for by the many steamers which regularly sail from Leith to the Continent, was carried on without break, but from August onward the export gradually declined, and latterly almost ceased in consequence of the collapse of the herring fishing and the restrictions put upon the export trade on account of the war. As a rule, the export of herrings *via* Leith reaches about 300,000 barrels in a favourable season, but this year's total was very little more than half that quantity.

Large quantities of cured cod fish from Faroe and Iceland, and of herrings from Norway and Sweden, used to be brought into the district, but this year's import was comparatively small. There was a great scarcity of cured cod, and at the close of the year prices had reached an unprecedentedly high figure.

Of late years the building of fishing craft has seriously declined in this district, and during the preceding three years it had come to a standstill. A welcome revival, however, took place this year when five steam trawlers were built in Leith for local owners, and it was reported at the close of the year that orders were in hand for other five. In engineering, and in repairs to trawlers and steam drifters there was always a fairly brisk business, but the building of wooden vessels has almost ceased.

The weather throughout the year was, on the whole, favourable for fishing operations; no great gales occurred, and, consequently, the loss and damage to boats and fishing gear was comparatively light. Two trawl fishermen were, unfortunately, lost at sea, but no lives were lost in the other sections of the industry.

JAMES INGRAM,
Fishery Officer.

31st December 1914.

Anstruther District.

The returns of fish landed show that the various branches of the fisheries which are carried on within the limits of this district were attended during the year just closed by a fair measure of success. Compared with that of the preceding year, the total catch shows an increase of 52,000 cwts., while the value exceeds that of 1913 by almost £12,000. It can hardly be said, however, that the prosperity of the fishing industry in the district is to any great extent reflected by the success of the local fisheries. Most of the resident fishermen are usually employed for the greater part of the year at fishings carried on in other districts, and for them, owing to the very exceptional situation created by the European crisis, the year 1914 proved one of the most unremunerative experienced for a long number of years.

For some years, as the sail boats have been gradually displaced by steam drifters and motor boats, the capital invested in the fishing industry has been increasing. In this district the value of vessels and boats has now reached £184,000, which exceeds that at the close of last year by £6590, and is an increase on that of ten years ago of about 64 per cent. During the year 4 steam drifters were added to the fleet, and motor engines were installed in 24 boats—11 first class, and 13 second class. Generally the motor installations were satisfactory, although in some cases at the outset difficulties were experienced in working the engines. At the close of the year a steam drifter was being built for local owners. Other orders for steam drifters and motors were, after the outbreak of war, cancelled.

The winter herring fishing during the past few years showed signs of declining, and preparations for prosecuting this fishing were not made on the same scale as in former years. A small number of crews commenced operations during the first week of January, and herrings were obtained in small quantities near the May Island. With an improvement in the results about the end of January, more crews were encouraged to fit out boats, and, during the first week of February, the usual fleet was employed. In contrast to the few preceding seasons when herrings were obtained mostly close inshore by means of anchored nets, most of last season's catch was obtained near the May Island, and, in consequence, the best results were obtained by the large boats. The fishing continued till the end of March, when the total catch amounted to 29,857 crans, valued at £32,065, compared with 8927 crans, valued at £12,252, for the season of 1913. Throughout the season the demand for herrings was good and satisfactory prices were realised. A considerable portion of the catch was sent to continental markets in a fresh state. About 1100 crans were cured gutted for exportation.

The summer herring fishing, so far as this district is concerned, may be characterised as a failure. During the early part of the season the local crews fished mostly from northern stations. Although no regular fishing was carried on from this district, occasional takes were landed during June and July. The fishing was abandoned at the outbreak of war, the total catch then being only 1268 crans, against 7784 crans for the whole season of the preceding year. Less than half of the catch was cured. For most of the district fishermen the summer fishing closed on 1st August. On the mobilisation of the Royal Naval Reserve, a large number of boats were partially depleted of their crews, and the fishing was abruptly terminated. A few crews resumed operations for a week or two about the middle of August, but, as the fishing area was restricted, the results were disappointing. Compared with the corresponding season of 1913, it is estimated that the loss to the fishermen of this district through the stoppage of the summer herring fishing amounted to over £60,000.

The local steam fishing vessels were employed during the months of April and May at great-line fishing. The results proved very satisfactory. High prices were obtained for the fish landed, and the average gross earnings per vessel were £135 greater than those for the same period of 1913. Small-line fishing continues to grow in importance. Altogether 21 motor boats and a number of sailing boats were employed at this fishing, the number of crews engaged being greater than usual owing to the stoppage of herring fishing. Small haddocks were abundant on the Firth of Forth grounds, and the catch shows an increase of 72 per cent.

The plaice and codling net fishing which is carried on in St. Andrew's Bay was attended by poor results. Unfortunately, during the last month of the year, when there were prospects of a successful fishing, the weather conditions were unfavourable, and a considerable loss of netting was sustained.

The value of shell fish shows a falling off. There was a considerable increase in the catch of lobsters, but during autumn, owing to exportations to continental markets being stopped, prices were lower. Crabs were less abundant. The demand for mussels during the latter half of the year was good, and the output shows a substantial increase.

No crews from this district took part in the autumn herring fishing on the English coast. This fishing in 1913 yielded to fishermen belonging to this district gross earnings amounting to almost £57,000. Five crews prosecuted herring fishing on the Irish coast during the summer months, but the venture did not prove successful.

Navigation classes were conducted at Cellardyke and Pittenweem during the winter months, and a few young fishermen attended similar classes at Dundee. Certificates of competency were obtained as follows :— 1 extra skipper, 16 skipper, and 8 second hand.

Since the outbreak of war the majority of the fishermen have been unable to follow their usual employment. The summer herring fishing was terminated at the period when it was expected to be most successful, and the English fishing, which had yielded so satisfactory results during preceding years, was for various reasons abandoned. It is estimated that through the stoppage of the different fishings owing to the outbreak of war, the loss to the district fishermen and hired hands employed on their boats would amount to at least £90,000, and the earnings of fishworkers were affected by the same cause to the extent of over £7000. During the past few months a number of the fishermen and most of the male fishworkers have been able to find employment, chiefly as labourers. A fair proportion of the younger men have joined either some branch of H.M. Naval Forces or the Army.

It is expected that the war will have far-reaching effects on the fishing industry in this district. At present the whole industry is practically at a standstill. Another unfortunate effect of the war will be the disorganisation of the continental cured herring trade. Business connections, which were built up by long years of successful trading, will be broken, and some time must elapse before business can be resumed on the old footing. It is to be hoped, however, that, with the expansion of the Russian markets, and also with the development of markets for cured herrings in other parts of the world, the fishing industry will, after the conclusion of hostilities, soon attain its former importance and prosperity.

WILLIAM KEIR,
Fishery Officer.

FISHERY OFFICE,
ANSTRUTHER, 6th January 1915.

Montrose District.

The outstanding feature of the fisheries of this district during the year 1914 was the sudden collapse of the summer herring fishing consequent on the outbreak of the European War. Otherwise the various branches of the industry were prosecuted with generally satisfactory results. Compared with the previous year's figures, the returns relative to the quantity and value of white fish landed during 1914 show an increase of 9257 cwts., and £8656. The value of the shell fish taken was almost similar to that of the preceding year.

The chief points of interest in regard to the means of capture statistics are the gradual decrease in the number of large first-class sailing boats, and the increase in motor propelled craft. In 10 years the large first-class sailing boats have been reduced from 93 to 41, and to judge from present indications many more of them will in a few years be finally laid up. The auxiliary motor boat, particularly of the skiff type, is yearly becoming more popular in this district. Nineteen boats were fitted with motors last year, the Gardner and Kelvin engines being practically the sole favourites, and both of these makes of motors are giving entire satisfaction. There are now 68 motor boats, valued at £18,340, belonging to the district, only 6 of which are large first-class boats, the remainder being skiffs and yawls ranging from 40 to 24 feet of keel.

A start was made at the herring fishing about the middle of June, but the catch landed for the first few weeks was meagre. Towards the end of July, however, matters improved, and the prospects of a successful season then were never more encouraging. Unfortunately, however, just when herrings were being located in large shoals from 18 to 32 miles south-east by east of Scurdyness, war broke out, with the result that operations at once ceased. The season's catch was therefore very light, totalling only 4302 crans, valued at £4078, as compared with 3668 crans and £5773 in the preceding year, which was the poorest on record.

The quality of the herrings landed was invariably good, particularly of those landed in the latter part of July. The season's average price per cran was 18s. 11½d., as against 31s. 5d. per cran in the previous year. The number of barrels cured gutted was 3155, of which most were consigned in September to Archangel where they are still lying unsold. Only 368 barrels of herrings were on hand in the district at the end of the year.

It was rather fortunate for fishcurers as matters turned out that their season's cure was not a big one. Had hostilities been a month later in beginning they would in all probability have been left with a large stock of cured herrings, for which they would have likely paid high prices owing to the continental markets at the end of July being in a healthy state, as the numerous enquiries for herrings showed. Fishermen were in a way the main sufferers, but with praiseworthy adaptability they loyally accepted the rather severe conditions arising from the war. At the close of the herring fishing they took to small-line fishing, and any employment on shore they could secure. Fears were at first entertained that fishermen and their dependants might feel seriously the closing of the herring fishing, but owing to the perseverance of the men and their thrifty habits they were invariably able to earn a fair wage from small-line fishing and shore work. There appears to be little danger, therefore, of any destitution being prevalent amongst them so long as they are permitted to engage at line fishing. About 300 district fishermen were at the end of the year engaged on Naval Service.

Sprat fishing, which usually continues in the Tay during the months of November, December, and January, was fortunately a marked success in the latter months of the year, and it must have proved a great boon to the fishermen interested, who all belong to creeks in the Firth of Tay. The season's catch was 2596 crans, valued at £2313, as against 730 crans and £217 in 1913. Never in the history of this fishing were such high prices realised at Dundee for sprats as was the case in December, when as much as 42s. a cran was paid, while the average price per cran for that month was 28s. 2d. The increased demand was mainly caused by the scarcity of herrings in the English markets, to which almost all the sprats were consigned.

Small-line fishing was pursued during the latter part of the year with much greater energy and by more crews than in recent years, owing to the fact that none of the boats went to the East Anglian herring fishing. Then the increased number of motor boats at work helped matters considerably in many respects. When the weather conditions were suitable—and with the exception of a stormy period in December they were generally so—fishermen were able to make a good weekly wage by working lines, notably those crews who were in motor boats. Sixty-four motor boats and about 85 sailers were engaged at this fishing. The largest numbers of motor boats were employed from Gourdon, Montrose, and Arbroath, the respective numbers being 22, 10, and 27. The catches of the motor craft were always more than double those of the sailers. The advent of the motor line skiff has undoubtedly raised the importance of line fishing among the district fishermen, and will tend to revive the

dwindling interest in this branch of the industry which in recent years was becoming very manifest.

Trawling operations were carried on from Dundee with very gratifying results, in fact, last year was the most profitable on record. Prices, which appear to be increasing yearly for white fish, were unusually high during the latter five months of the year. Notwithstanding the high cost of working expenses and the war restrictions imposed by the Admiralty, all connected with this part of the trade at Dundee should have had a profitable time. In quantity the trawled fish landed in the district shows a decrease of 5985 cwts., but in value an increase of £2474, when contrasted with the returns of the previous year. Trawled haddocks exhibit a shortage of 3283 cwts., but plaice show an increase of 2318 cwts. in comparison with the figures of 1913. The chief fishing areas visited were those from 5 to 90 miles S.E. by E. to N.E. from the Bell Rock and 10 to 50 miles E.N.E. of the Aberdeenshire Coast. As a rule the boats made two trips per week to market, a practice which ensures a daily and regular supply of fish to buyers. The sum grossed by the most successful trawler last year was £4306, while £3786 would represent the average gross earnings of each boat. The value of the best single shot was £155. The average catch per arrival was 52.32 cwts., and the value £46, as against 55.53 cwts. and £39 a trip respectively in 1913. The average price of trawled fish per cwt. last year was 17s. 4d., as compared with 14s. 5d. per cwt. in the previous year. Several stranger trawlers landed their mid-week shots at Montrose. Two of the Dundee boats were sold in the spring, but they are likely to be replaced by more modern vessels soon.

The shell fish returns are almost the same as those of the preceding year.

Thirteen crews successfully engaged at the Firth of Forth winter herring fishing. The boats which fitted out for the spring great-line fishing had a moderately successful season. Those crews who, in the autumn, went to the North of England herring fishing only remained a short time owing to the danger from mines. None of the district crews proceeded to Lowestoft and Yarmouth.

Fortunately, no lives were lost in connection with the industry, and the loss of and damage to fishing gear and boats were not serious.

Four steam trawlers were built at Dundee for English owners, and four steel steam drifters were built at Montrose for Moray Firth crews.

Coopers were regularly employed at good wages until the close of the herring fishing. Meantime the most of them are engaged on a limited scale at barrel making. Seven coopers are serving with the colours.

Preparatory classes for the teaching of navigation were again conducted at Ferryden, and most of the men who attended them were able to obtain the Board of Trade Certificates. The barometers at Broughty Ferry and Arbroath are in good order.

FREDERICK FRASER,
Fishery Officer.

FISHERY OFFICE,
MONTROSE, 7th January 1915.

Stonehaven District.

Although the aggregate catch of fish landed for the year 1914 shows an increase of 5210 cwts. in quantity and £1642 in value when compared with the returns for the previous year, nevertheless the various branches of the industry cannot be said to have been prosecuted with any marked

degree of success. The herring fishing was again a comparative failure; and the shell fisheries have decreased by £473, so that the earnings of fishermen were below the average at most stations.

There has again to be recorded a decrease in the number of fishermen, boats, and extent of fishing material used, which is largely due to the unprofitable results at almost all kinds of fishing conducted, especially at Stonehaven, for a number of years past. Most of the young fishermen have taken to labouring work, while many of the older men have obtained employment at the local net factory. As the old boats get unseaworthy, fishermen are not in a position to replace them with new ones. Unfortunately, the fishermen have not been able to move with the times in securing steam drifters. An effort has, however, been made to introduce motor boats of over 36 feet of keel for line fishing. Fishermen have so far been unwilling to take advantage of the offer made them by a few local gentlemen, who have promoted small companies for their benefit with the view of stimulating the industry, which is fast declining.

In the early spring the usual start was made at the sail great-line fishing, but the number of boats fitted out was the smallest that has ever been employed. The fleet has shown a gradual falling off during the past five or six years, and only five boats were engaged this season, which, as usual, landed the bulk of their catch at Aberdeen, where better prices were generally obtained than at home. Catches consisted principally of cod, and the best fished boat grossed £280, while the average earnings were about £170 for 10 weeks' fishing. The grounds frequented were mostly from 50 to 65 miles S.E. from Stonehaven, and a good supply of herrings for bait was regularly caught in that locality. In consequence of the high prices ruling for herrings, an earlier commencement was made at the summer herring fishing than fishermen at first intended. During the month of June and the first fortnight of July the efforts of the crews engaged were rewarded with a fair amount of success. They landed most of their shots at Aberdeen, being attracted by the keen demand and good prices. About the middle of July, however, the fishing fell off, calm weather prevailing, so that the herrings landed thereafter were mostly "overdays." The fishing terminated, as it did last season, a comparative failure, and it can hardly be said to have been affected by the outbreak of war, as the boats continued to fish well throughout August. Considering the poor quality of the herrings, prices were well maintained, averaging 17s. per cran, against 25s. per cran for 1913. All the boats employed were sail-drifters, and their earnings ranged from £150 to £220, averaging about £176. Practically the whole of the season's catch was kippered and freshed.

The small-line fishing produced slightly better results than in the previous year, notwithstanding that fewer boats were employed, but numerous shots landed by Gourdon motor boats helped to augment the catch. Although the individual catches of fish secured were by no means heavy, a redeeming feature was the exceptionally high prices realised, especially since August. The fish landed consisted chiefly of extra small haddocks, which under normal conditions would have been unsaleable, but during 1914 the demand was extraordinary good, no doubt owing to the short supplies landed at Aberdeen. Women buyers from Portlethen and Downies were the means of keeping prices at a high level. The quantity of small young haddocks that have been on the coast since July has been very remarkable, and to the astonishment of the fishermen they have remained much longer on the inshore grounds than usual, as they generally migrate about the end of November further to sea. The catch and value show an increase of 1775 cwts. and £910, when compared with the returns for 1913. The earnings made by the motor boats greatly excelled those of the sail boats.

Crab fishing is the principal industry carried on at the stations lying to the south of Stonehaven, and the season's catch was not so good as in 1913, showing a decrease in the number of crabs landed of 53,289. Crabs were very scarce in spring, and even during the summer months the catch did not come up to expectations. The fishermen consign all their crabs to market themselves, chiefly to London and Manchester. The number of lobsters caught shows an increase of 1158, which is accounted for by the use of a special creel, with one entrance, the fishermen having discovered that the lobsters escaped out of the ordinary crab creel, which contains entrances at both ends. The practice of using special creels will be generally adopted in future.

There were no herrings branded during the year, and in all only 80 barrels were cured gutted. It is feared that Stonehaven is doomed as a herring centre unless some effort is made to introduce steam fishing vessels.

Fortunately, there has been no loss of life, and the loss of fishing gear sustained has been very trifling. None of the boats went south to the English fishing.

The local net factory gave promise of a record output, but since August the dislocation of the herring fishing industry has almost paralysed its trade, and it is now only giving partial employment to the principal workers.

The deepening of the basin and the construction of the new break-water at Stonehaven was proceeded with throughout the year.

No classes of any kind for fishermen were conducted at any of the creeks.

The fishing barometers at Skateraw and Stonehaven are well looked after and in good order.

JAS. DONALDSON,
Fishery Officer.

FISHERY OFFICE,
ABERDEEN, 13th January 1915.

Aberdeen District.

But for the intervention of war, the year 1914 would, in all probability, have ranked as one of the most prosperous in the annals of the fishing industry. As it was, however, the stringent regulations laid down by the Admiralty from time to time, restricting fishing operations on certain areas, and the requisition of a large number of the best class of trawlers for naval purposes, seriously handicapped the whole industry. Still, even as matters have turned out, the general results are by no means so disappointing as might have been expected. The total catch and value of fish landed, including foreign vessels, show decreases of only 433,486 cwts. and £144,386, when contrasted with the figures for 1913, the record year for the district.

With regard to the means of capture, the number of fishermen, boats, and extent of fishing material belonging to sailing vessels, all show decreases. There are now only 4 first-class sailing boats registered in the district, and fishing by means of sailing boats is almost entirely confined to old men. Steam liners and drifters remain practically the same as last year, but steam trawlers have increased in number by 15 during the year. All over the returns show an increase of 10 vessels and 4443 tons. This large increase of tonnage is due to the fact that all steam fishing vessels registered prior to 1907 have been remeasured in accordance with revised

Board of Trade regulations, whereby their tonnage has been considerably increased. A considerable number of steam fishing vessels working from this port were taken over by the Admiralty for mine-sweeping and patrol work. Three of the vessels have been reported sunk by mines, and are not included in Appendix F., No. 3, as lost at fishing.

The trawling industry during the year under review was, on the whole, very successfully prosecuted up to the middle of August, and under normal conditions several records would have been established in earnings realised. Nevertheless, the earnings grossed by the largest vessels were highly satisfactory, and those of the smaller trawlers have never been better owing to the great increase in prices since the outbreak of war. The most outstanding feature of the year was the remarkably high prices obtained for all kinds of fish, especially since the commencement of hostilities, unprecedented figures having been reached. Another feature has been the astounding decrease in the catch of haddocks, particularly of the larger selections, amounting to 113,022 cwts. A further striking feature was the enormous quantity of extra small haddocks and whittings landed from early summer to the end of December. Notwithstanding their smallness, they invariably realised very high prices, whereas in a normal year they would have been often unsaleable. It was reported by skippers that large quantities of these small fish were thrown overboard after each drag in July and August, being considered unfit for market use. During the summer months 1812 cwts. were sold for manure. It is not an uncommon occurrence to hear skippers advocating a minimum mesh for otter trawling, and even the haddock curers are getting alarmed at the continued scarcity of the large sizes of fish suitable for curing as "Finns" and "Pales." Fewer extra-small-sized plaice were landed than has been the case for some years past. In February and early in March the industry was threatened with a scarcity of fish, but, fortunately, a new fishing bank was discovered at Faroe shortly thereafter, 26 to 27 miles S.E. by S. from Fuglö, which the fishermen named "New Klondyke." The bank produced magnificent results until June, when the long daylight made fishing unprofitable, and the fish caught consisted chiefly of codling and cod. Very little was done at trawling for herrings during the year. Only one shot of 264 boxes was taken by means of the special herring trawl net on the west coast off Tiree. All the other herrings accounted for were taken by the ordinary white-fish trawl net. The average price realised for trawled fish was 14s. 3d. per cwt., as against 12s. 4d. for 1913.

The catch of fish landed from Faroe was the best experienced for some time, exceeding the previous year's catch by 87,879 cwts. in quantity and £52,707 in value. A feature of the year was the unusual scarcity of haddocks from that area, codling predominating in most catches.

As usual the Iceland fishing was conducted chiefly by German trawlers, and up to the outbreak of war the season was one of the most prosperous experienced since they commenced to land at this port. Only 11 local trawlers prosecuted the fishing for about four months, and most of the vessels engaged in wet salt curing voyages, which turned out fairly remunerative. Landings from that area show a decrease of 18,728 cwts., but an increase in value of £6266, compared with the catch for 1913. Since September, Grimsby trawlers have frequented this port more than usual, and have landed some heavy catches from Iceland, otherwise the results would have been different. The catch landed by foreign vessels was 46,557 cwts. less in quantity and £10,655 less in value than in the preceding year, which was wholly due to the stoppage of the fishing for five months, as their catch at the 1st August showed the substantial increase of 142,545 cwts. and £11,498. Only 2 shots came from the

White Sea grounds, valued at £316, against 27, valued at £8672 in 1913, and all were landed by German trawlers.

The steam line fishing industry was conducted without cessation throughout the year, and besides the regular fleet employed, 16 trawlers were fitted out in early summer for lining. Although the catch and value exhibit a notable increase, when compared with the landings in 1913, local vessels did not realise such good earnings generally. Stormy weather and shoals of dogfish often prevented successful operations, and voyages proved fruitless at times on that account. Since September, the catch has been considerably augmented by the landings of Grimsby liners frequenting the port, and in summer K.Y. and P.D. liners landed numerous catches. A record catch for value was made in December, when a Grimsby liner landed a shot which realised the magnificent sum of £1247, against the port's previous record of £700. All the motor and sail great-line fish were landed by stranger crews at Aberdeen. The small-line fishing was not a success, and fewer boats were employed than usual.

The herring fishing made an early start in May, but owing to the war terminated about the middle of August, with disappointing results. A good average fishing was brought ashore daily by the boats employed, but the fleet operating from the port was too small to meet the demands of the trade. For several years Aberdeen has suffered greatly for want of a sufficient fleet, a state of matters which is said to be largely due to the inadequate landing accommodation for steam drifters. With the collapse of the Shetland fishing in July a large number of English drifters arrived to fish here, but operations had to be given up when the season's prospects were at their best. The bulk of the catch was purchased by tanners and kipperers at high prices, so that curers could not compete with them in buying for cured gutted purposes. The quality up to the middle of July was poor, but thereafter improved very much. The average price realised was 24s. 7d. per cran, against 35s. 5d. in 1913. The best fished drifter grossed £1220, and the average was about £500. Sail drifters averaged £160. Large quantities of mackerel were landed in June and July by the herring boats, and often were unsaleable, selling as low as 1s. per cran. About 40 per cent. of the year's catch was sent fresh to market, chiefly to the Midland counties of England and Glasgow. More herrings were sent fresh to Hamburg than has been the case for several years, but the venture turned out rather unfortunate for the sender. Two thousand seven hundred and forty barrels of ungutted cured herrings were received by sea from Yarmouth for making into "reds," and about 1100 crans came by rail, mostly for tinning purposes.

The number of barrels of herrings cured gutted was only about a fifth of last season's quantity, and practically none was branded, so that the curers in this district suffered very little loss, having few barrels in hand when the war commenced.

A considerable amount of business was transacted in connection with the curing of cod, ling, etc., up to the end of August, after which no supplies of fish for curing dried could be obtained. This industry employed a very large staff of men, women, and boys in preparing the fish for export. Most of the fish are partly sun-dried, and finished off with coke fires, which process seems best adapted for tropical markets. About 70 per cent. of the fish cured are cod, and prices were about £32 per ton, for the best quality, and for other kinds of fish, according to standard of cure, from £18 to £26 per ton. Owing to the stoppage of the landings by foreign vessels from Iceland, the quantity cured was slightly under that of 1913.

All the cured herrings were exported to the Continent in part cargoes only during the year, and were consigned by the curers themselves, no

herrings having been sold on the spot. The amount of cured-dried fish exported *via* England to Spain, South America, and Mediterranean ports was slightly ahead of last year's quantity.

None of the local steam-drifters ventured to the English herring fishing, and a number of the boats started the great-line fishing instead.

Shipbuilders had an exceptionally busy year. The number of fishing vessels launched was 54, against 36 in 1913, and their estimated value was £347,400. The prospects for the coming year in the building of trawlers are good, many orders being in hand. Most of the orders which had been placed for steam-drifters have been meantime cancelled, owing to the present uncertain position of the herring fishing.

Two new barrel factories have been erected during the year, at a cost of about £10,700. One of the factories has made no barrels yet, and is not likely to do so under present conditions. Coopers were fairly well employed up to the end of September, but since then many have been idle and others are working at a reduced wage. It is feared that if the war promises to be of long duration most of the cooperages will be closed, as the stocks of barrels in hand are large. The number of barrels manufactured was 29,647 less than in 1913.

The new extension of the fishmarket was opened in February, and was intended for the landing of all Iceland catches, but before the season proceeded far, it was found unsuitable for that purpose, and used for ordinary landings of fish. The new dock at Torry was also opened in July, but so far has only been used for storing unemployed steam fishing vessels. A scheme for extending the pier accommodation on the north side of the river Dee, from Point Law upwards to Victoria Bridge, has been commenced, and when completed will be of immense advantage to the herring fleet for landing purposes. The length of the wharf will be 600 feet, and the cost is estimated at £13,000.

Special technical classes are now held at Robert Gordon's College, Aberdeen, for all fishermen and seamen, who intend to sit for the Board of Trade certificates as second hands, mates, and skippers, instead of at the Aberdeen School of Navigation, which is now closed for classes. Full advantage of the classes has been taken by the young fishermen. The money has been granted for the erection of a Technical School for seamen and fishermen near Torry, but the site is unavailable until the present lease expires.

The prospects of the fishing industry for the future are very difficult to forecast, as much depends upon the duration of the war. The trawling industry, however, augers fairly well, as the markets for all kinds of fish remain open, and a fair fleet of vessels is still engaged. It is different with the herring fishing industry, as the markets are practically all closed, and it looks very doubtful in the meantime whether any herring fishing will be carried on during the ensuing summer—a consummation which would be disastrous in many respects to every one connected with it. The prospects for the important cod, etc., curing industry look extremely black, and this branch will suffer severely, as it has depended for its supplies of fish so largely upon the landings made by German trawlers.

JAMES DONALDSON,
Fishery Officer.

FISHERY OFFICE,
ABERDEEN, 16th January 1915.

Peterhead District.

Just as the year 1913 was a memorable one for its unparalleled success, so the year 1914 will long be remembered for the disastrous effects which the outbreak of war had upon the fishing industry. At the beginning of hostilities it may be said that the chief branch, the herring fishing, was going through a period of extraordinary financial activity and prosperity. The great success of the previous year had induced a number of people to invest a considerable amount of capital in the various branches of the industry, in order still further to extend and develop the trade. Fishermen and drifter owners had rushed in to obtain at all costs new and second-hand vessels, and as the statistics will show increased the means of capture appreciably.

In the fishcuring trade matters had proceeded on similar lines to the other branches of the fishing industry. Certain fishermen who had been successful with their steam drifters were under the impression that they would do still better by investing their hard-earned savings in the curing of herrings, and into this branch therefore they embarked with unlimited confidence. The result was that the number engaged in the trade was higher than ever before. At the very moment, however, when the aspirations of the fishcurers seemed likely to be fulfilled war was declared, and the disorganisation which ensued at a time when so much capital was involved was correspondingly great.

There is no abatement in the demand for steam herring drifters, there being an increase of 14 over the previous year. There would, no doubt, have been a further increase had not the demand for new and second-hand vessels been so great that fishermen who were anxious to become owners could not be supplied. There is only one motor boat belonging to the district, the fishermen being still disinclined to go in for this improved and economical auxiliary power.

The herring fishing season opened well about the middle of May, and enjoyed extraordinary success in its earlier stages. The catch at the date of the commencement of hostilities was almost 170,000 crans, a catch which in the days when the fishing was confined to sailboats would have been considered a very high one, even at the close of the season. If the paralysed state into which the herring fishing industry was plunged at the beginning of August had only ended with the home fishing, matters would not have been so bad, but the English fishing, on which so much depends nowadays, was also interfered with, with disastrous results. Indeed no branch of industry has suffered more adverse effects than herring fishing. No sooner were hostilities declared between the principal nations of Europe than the herring trade became almost completely paralysed. The fishing at this time was at its height, and by the calling out of the Naval Reserve crews were broken up, which necessitated a number of the fishing boats lying idle. This meant that thousands of fishermen were thrown out of employment. Even the vessels which could muster their full complement of men experienced difficulties almost as great as had to be faced by those who were compelled to lie ashore from sheer necessity. This was due to the great personal risk to life and property which crews would have to take if they attempted to fish any distance from the land, for inshore fishing is considered nowadays of trivial account.

It is not only the fishermen who have had to bear the brunt of the disorganisation of the herring fishing. The thousands of workers employed in preparing the fish for market suffered proportionately for want of employment; while coopers, carters, and other workers in the fishing industry were equally affected. The fishcurers, though fewer in number

than the fishermen and fishworkers, have also been badly hit, and though the results in most cases cannot be described as disastrous they will be rather severe.

Owing to an agreement early in June among buyers and importers on the Continent not to buy early and immature herrings, larger stocks than usual accumulated on this side, and at the beginning of August when hostilities broke out there were 84,000 barrels lying on hand, besides a considerable quantity consigned to Russia and Germany and lying in these countries unsold. It became necessary therefore for many to seek other outlets for their produce, and several exporters shipped consignments to Norway, Sweden, and Holland, for which they had to make a declaration that these countries were the ultimate destination of the herrings. Ultimately an embargo was placed upon shipments of herring to these neutral countries, but by that time the quantity on hand was reduced to less than 30,000 barrels. Exporters continued their utmost endeavours to find other markets for their surplus stocks, and with that object in view efforts were made to extend the New York market on a much larger scale than in previous years, and to promote co-operation with agents throughout the United States.

Advances made by local banks and others on the security of the unsold article have to a considerable extent relieved the situation, and it is hoped that if peace is declared before the beginning of another herring fishing season even the most heavily involved may weather it out. A number of those most directly concerned, however, do not think it at all probable that a settlement will be arrived at in time to allow the fishing to be resumed under anything like normal conditions, and they view the prospects for the year 1915 with considerable foreboding.

At the close of the present gigantic struggle many grave questions will arise in connection with the fishing industry, and none more pressing than those concerned with the herring markets. Germany, which has for a number of years been one of the principal markets for the Scottish cured herrings, will not likely be in a condition to permit of consignments being sent to her throughout the year 1915, so the American market ought to be developed to such an extent as to compensate to a certain degree for the loss of trade sustained on the Continent.

Since the outbreak of the war the number of fishermen engaged in white fishing has increased considerably, but owing to exceptionally severe weather and the scarcity of fish on the inshore grounds, there is a decrease in the quantity of fish landed. The high prices, however, obtained for the various kinds of fish raised the total value slightly above that of the previous year.

As already stated, the English herring fishing upon which so much depends nowadays proved the most disastrous since it has been the habit of the fishermen of this district to participate in it. Only 32 local vessels ventured south to Lowestoft and Yarmouth, compared with four times that number in 1913, but owing to the risk to life and property from mines in the North Sea, they only remained for a brief period. For the short time they were engaged in fishing they did well, their earnings amounting to £420 per vessel. This, however, was but a pittance compared with the earnings of previous years, and by four times the number of fishermen. Very few curers or their workers, such as coopers, carters, and gutters, proceeded south, and the lack of the earnings which these generally brought home from East Anglian ports will be very much felt throughout Peterhead and district.

As practically all the year's stocks of barrels are as a rule made before the beginning of the summer herring fishing, larger supplies than ever were manufactured during 1914, but owing to the outbreak of war a large

proportion of the quantity made was not utilised, and very few were required for Lowestoft and Yarmouth. With the stores pretty well filled the outlook for the coopers is anything but bright.

In consequence of a dense fog which was lying round the coast about the middle of June, a number of sailboats and steam drifters went ashore and sustained considerable damage. About the same time a sailboat belonging to Port Erroll was sunk in collision off Peterhead, and unfortunately two of the crew were drowned. This is the worst fatality which has taken place in connection with the fishing industry of the district for a number of years past.

As so many fishermen have volunteered for patrol and mine-sweeping operations, while others have joined the ranks of the Naval Reserve, there was some difficulty in forming a navigation class for skippers and second hands of steam drifters. The highest number in attendance at one time did not exceed 20.

WALTER DUFF,
Fishery Officer.

FISHERY OFFICE,
PETERHEAD, 13th January 1915.

Fraserburgh District.

The most outstanding features of the year 1914 were a large increase in the number of steam drifters and motor boats, a decrease in the number of sail boats, and the extent to which the industry was affected by the outbreak of war.

The herring fishing, the most important industry in the district, began about the middle of May; and as continental buyers had lost considerably by purchasing early caught herrings during previous seasons, they held back, or only purchased small quantities for immediate use. The consequence was that prices for fresh herrings remained moderate during the months of May and June. With the advent of July the quality had improved, a more keepable article was produced, and prices rose steadily. During the last two weeks of July fish of splendid quality were landed, and there was every prospect of a good fishing. To all appearance there were large shoals of fish on the ordinary fishing grounds, and the trade were looking forward hopefully to the future, when war was declared, and the industry was practically brought to a standstill. The Naval Reserve was called up, and about 500 men, mostly hired hands, left early in August. With the exception of a shot of 190 crans, landed by a Wick crew, no herrings were landed during the first two weeks of August. From the 17th August until the 25th September a few steam and motor boats were employed at herring fishing on the inshore grounds, and landed a light general fishing, which sold at moderate prices, for kippering and freshening purposes. Compared with the former year the catch shows a decrease of only 26,380 crans, but the value is £169,737 less. The average price for 1914 is 20s. 1d. per cran, and for the previous season 35s. 7d.

When war broke out about 56,000 barrels of cured herrings were on hand. A considerable portion of these had been sold to exporters, but owing to a war clause in the sale note, the buyers as a body refused to implement the bargain. Some of these herrings were sold afterwards at 4s. to 8s. less per barrel. As Baltic ports were closed, efforts were made to dispose of the stock otherwise. Four cargoes were sent to Archangel, and eleven cargoes to Norwegian ports. There was also a

demand for good keepable herrings from America, and a larger quantity than usual was disposed of to that quarter. At the end of the year 12,690 barrels of herrings remained on hand. It is generally surmised that a considerable quantity of the stock now on hand being June herrings, and not of a keepable quality, will not be of much value, should the war last a few months longer.

Only one steam drifter ventured to the English herring fishing, and grossed less than £100, which would do little more than cover expenses. Several other steam drifters were fitted out, but the crews apparently had difficulty in getting them insured, and the vessels were again dismantled. Five crews of fishermen went south to work English steam drifters, but they had only been at sea a few times when the attempted raid by a German fleet, and the sowing of floating mines off Yarmouth, practically put an end to that fishing. Six fishcurers with reduced staffs of workers went to Yarmouth and Lowestoft, and cured a few thousand barrels of herrings, most of which are still on hand. It is not yet possible to estimate the loss which curers will sustain, as it is not known what the stocks on hand may yet realise, but it may generally be stated that curers, fishermen, and fishworkers have had a very unremunerative year, so far as the catch and cure of herrings are concerned.

Compared with the former year there is an increase of 14 steam drifters and 11 motor boats, with a corresponding increase in the value of vessels and fishing gear for both these classes. The number of sail boats shows a decrease of 48, and about £13,000 in value, which makes full allowance for those struck off the Register, and depreciation for those still on hand. The gross total value of vessels and fishing gear is fully £20,000 more than in the previous year, and would have been greater had the year run its normal course, but fishermen are not inclined to invest more capital in vessels or fishing gear until the war ends.

During the first four months of the year the inshore white fishing was carried on by from 150 to 200 boats, with very moderate success. With the collapse of the herring fishing and very little prospect of an English fishing, close on 300 yawls were employed at line fishing in October and November. Fish were more plentiful than usual on the inshore grounds, high prices were obtained, and the fishermen made good earnings during this period. There is an increase of fully 5000 cwt. in the principal kinds of white fish landed, and fully £5000 of an increase in value, when compared with the preceding year.

Six of the larger sized drift net boats and five of the second-class line-boats got motors introduced. In the latter class of boats the motor has proved a great boon to fishermen, especially in the shooting and hauling of lines. They have also on a good many occasions with the aid of the motor been able to prosecute their calling when the sail boats were unable to get to sea. The general opinion amongst line-fishermen who have got motors is that if they had known they would be such a benefit they would have adopted them long ago. So far as drift-net fishermen are concerned, they still show a preference for steam, when they can surmount the initial expense.

The Company who deal in bye-products purchased the whole of the fish offal produced in the district, and there has been no change in their system of manufacturing it.

Local School Boards continue to give every encouragement to fishermen who desire technical instruction, especially in their winter evening schools. During the first ten weeks of the year there were classes for navigation, marine-engineering, marine-motors, cookery, coopering, and fishcuring, and marine biology. When the classes were resumed in October, the latter subject had to be abandoned owing to the lack of

pupils, and all the other classes suffered more or less owing to so many young men having joined the Army or Navy.

During the first seven months of the year boat builders were fully employed, and built 12 steam drifters, and 28 sail boats of the smaller size. They had orders on hand which would have kept them employed well into another year, but when war was declared all the orders that possibly could be were cancelled.

There is a slight decrease in the number of barrels and half barrels made during the year. Curers will carry forward a large stock of empty barrels owing to the sudden stoppage of the summer herring-fishing, and to so little having been done at the English fishing. Since the month of August the number of coopers employed has been very much reduced. Most of the men working since that time have been restricted to about one half of their usual output.

The year saw the completion of the construction, at a cost of fully £160,000, of the new Faithlie Harbour. This basin will provide accommodation for a large number of fishing vessels during the herring-fishing season. The harbour was opened too late to be of much use this year, but it will prove a great advantage to the port in future years. During a storm in October, the storm gates of the new harbour were unfortunately demolished, but steps are being taken to provide much stronger means of keeping back the heavy seas.

When war was declared it was expected that the community would be plunged into a state of poverty, but, on the contrary, there has been very little distress. Business generally has been curtailed, and losses have been sustained, especially in herring-curing, but as the two previous fishing seasons in England had been remarkably successful, from a financial point of view, and as most of the curers had got a share of the success, they should be able to tide over a lean year. A large number of people have found employment in the Army and Navy, on patrol and mine-sweeping vessels, and in salving the cargoes of three large steamers which went ashore in the district. About 550 people, mostly boys, girls, and old men, have found employment in Messrs. Maconochie's factory, in the manufacture of tinned army rations, and about 30 have found work in making wooden packing cases for the rations.

Women in poor circumstances were employed in making and mending socks for the Army and Navy. Altogether the situation has turned out not nearly so bad as was expected. Prices for food stuffs and clothing have advanced, but everyone is facing the situation with calmness and courage, in the hope that the war will be ended in our favour before the advent of another herring-fishing season, when the community and the principal industry of the district will quickly recover their normal condition.

GEO. CORMACK,
Fishery Officer.

FISHERY OFFICE,
FRASERBURGH, 14th January 1915.

Banff District.

The year just closed opened with bright prospects for the fishing industry. With the gradual increase in well-equipped steam drifters, fishermen, who with these vessels, follow herring fishing from one place to another throughout the year, looked forward hopefully to a successful and prosperous year. The results of the white fishing were about normal,

but cod-net fishing, which a few years ago seemed to promise well, does not continue to make progress. There was no local winter herring fishing, but considerable quantities of herrings were landed by boats from the Stornoway fishing grounds. These were utilised for kippering, and at this curers did very well. The summer season opened very favourably, yielding fair supplies for kippering and freshening purposes. In May some consignments of cured herrings were forwarded to German markets, but owing to the rather poor quality the venture did not turn out a success. Towards the end of June a good fishing set in, quality improved, and curing became general, while kippering, which had been carried on energetically and successfully, began to decline owing to the high prices ruling for fresh herrings. Unfortunately curing for exportation was not a success. For some of the herrings sold full settlement has not yet been made, other consignments remain unsold, and it is difficult to forecast what may be obtained for them. Curers have their money tied up in these as well as in stocks of barrels and salt unused. At the end of July, when everything seemed prosperous, and the best part of the season was still to run, war broke out, and the fishing, on which the prosperity of the Moray Firth ports almost entirely depends, suddenly collapsed, throwing out of employment fishermen, fish workers, coopers, and all who earn their livelihood in connection with the fishing industry. Practically all the local steam drifters and large sail boats were at once dismantled and laid up, and fishermen, after a short breathing space, set about seeking other employment. Harvest came at an opportune time, providing remunerative occupation for a considerable number, some of whom were retained for ordinary farm work when harvest was over. The local harbour works gave more permanent employment to a good many fishermen and others, who would otherwise have been almost destitute. A number of fishermen, being Naval Reservists, have been on duty since the outbreak of hostilities, and many of the younger men are serving their country among the Territorials, Naval Brigade, Mine Sweepers, and Scouts, etc., for which latter purpose quite a number of the local steam drifters have been engaged. Several coopers and boatbuilders have joined the Army or Navy, while others have found occupation in ship-building yards, etc., in the south. Many of the fisherwomen who, in ordinary times, depend on their earnings at the various fishings, have got employment on fairly remunerative terms in knitting for the soldiers and sailors, partly in connection with the "Queen's Work for Women Fund." Taking it all over, the unemployment difficulty is meantime fairly well met, and with all the different agencies at work there seems so far to be little actual destitution.

Small-line fishing was very similar to that of the preceding year. The chief variations were a greater proportion of small haddocks and a considerable increase in the catch of whittings.

About the same number of boats prosecuted cod-net fishing, but with less success, the total catch being about one-third under that of the previous year. The fish generally were of small size, and appear to be getting scarcer on the grounds in this district.

The Whitehills men did fairly well, fishing with nets for soles and plaice, a method of fishing which adds considerably to their earnings.

Shell fishing, confined to crabs, was carried on at Gardenstown, Macduff, and Whitehills, and was slightly better than in 1913.

There was no English fishing. Only 3 steam drifters operated for a very short time, and they had to give it up on account of the dangerous environment. They grossed only £1300 in all, which, compared with the earnings of last year (£70,000), shows the great loss sustained by the fishing community.

A smaller number than usual of boats went to the Irish fishing, which was unsuccessful. A few crews grossed from £250 to £400, but the majority made much less. There were no motor or sail boats at either of these fishings.

Until the outbreak of war boatbuilders were busy, and had orders sufficient to keep them fully occupied the whole year. The unfulfilled orders were cancelled, which practically put a stop to the work. Before work was stopped they turned out a fair number of vessels—26 in all (of which 17 were steam drifters). Nineteen were for the district, 6 for other districts, and 1 for England. At present only a few men are at work building small boats and doing repairs, and the prospect is by no means bright.

Navigation classes for fishermen were carried on in various centres, which, although not largely attended, had fair results. Out of 24 who presented themselves for examination as skippers, 22 obtained certificates, and of 28 who sat as second hands, 21 passed and 9 failed, 4 of them in the eye test.

The harbour extension at Macduff is making satisfactory progress, with very little interruption by adverse weather.

There was no loss of life in connection with the fisheries, and the damage to gear was comparatively light. The fishery barometers are in good order, and fairly well attended to.

JAS. FARQUHARSON,

Fishery Officer.

FISHERY OFFICE,

MACDUFF, 6th January 1915.

Buckie District.

The most noteworthy events in connection with the district fisheries in 1914 were the very large increase in steam drifters, with a corresponding increase in fishing gear, the decrease in first-class sail boats, and the abrupt ending of the herring fishing caused by the outbreak of war at the beginning of August.

Following on a succession of good herring fishing seasons the closing months of last year and the beginning of the present year brought a great demand for steam drifters, with the result that 22 vessels of that description were added to the fleet at the beginning of the summer herring fishing, and it is gratifying to observe that this increase was spread over the different creeks of the district. Ten of these were new and 12 were bought second-hand, principally from England. The total number of steam drifters registered in the district is now 298, with a tonnage of 8584 tons, and a value of £685,400. On the other hand, no fewer than 33 first-class sail boats were struck off the register during the year, having been either sold out of the district or broken up. The means of capture returns, which include vessels and all fishing material, show an increase of £12,543 upon last year's figures, and an annual increase has been a feature of these returns ever since the introduction of steam drifters to the district. Auxiliary motor power as a means of propulsion is not in favour with the fishermen of this district, and only 13 first-class and 2 small boats are equipped with motor power, the former all belonging to one creek, viz. Findochty.

The cod-net fishing was prosecuted from the middle of January to the end of April by 3 steam drifters, 55 sail, and one motor boat. At that early season of the year weather conditions were not always favourable for

fishing purposes, and the returns show a decrease from the previous year of 3951 cwts. in quantity and £354 in value. Prices fluctuated considerably, ranging from 10d. to 2s. 3d. per fish, the average being 1s. 4d. per fish. Two firms conducted curing operations, and dealt with 2749 cwts. of wet fish and 537 barrels of pickled cod. The bulk of the landings was dispatched in a fresh condition to the home markets, principally London and Glasgow.

As in former years the fleet of steam drifters fitted out early in May for the summer herring fishing, and proceeded to the various centres on the West Coast, Orkney, and Shetland, remaining there with an occasional visit home until the outbreak of war. When hostilities broke out early in August, the operations of the district fleet, whose prosperity depends entirely upon the herring fishing, were brought to an abrupt close, by the calling up of the Naval Reserve forces, to which a large proportion of the crews of these vessels belonged, and all the arrangements made for the season's work were dislocated. After that the vessels returned home to await developments, and a few of them subsequently made a trial on the English coast at great risk to themselves, owing to the waters there being strewn with mines. On 28th August the Buckie drifter "Barley Rig," B.C.K. 145, unfortunately struck a floating mine while fishing off Scarborough, and was blown up with the loss of 5 members of the crew. This accident put a stop to fishing by fishermen of this district on that coast.

The summer herring fishing at home was begun in the middle of May by a few sail boats which remained to try the Moray Firth fishing grounds before leaving for other stations. Their success was only partial, and the bulk of the herrings was landed by steam drifters coming home for week-ends. The total catch amounted to 5261 crans, against 5401 crans for the previous year. Only one direct shipment of cured herrings was made to the Continent, the bulk of the cure being sent coastwise by steamer to Aberdeen and Leith for exportation.

The number of boats employed at small-line fishing varies according to the seasons of the year. In the months of October, November, and December of this year, 1 steam drifter, 2 motor boats, 14 large, and from 30 to 50 small boats were employed throughout the district. The quantity landed shows a slight decrease from the previous year, but high prices were obtained for haddocks, which compensated for any short-coming in the catch. In some instances 40s. per cwt. was reached, while the average price for the year was 18s. 8d. per cwt., compared with 15s. 1d. in 1913.

The English herring fishing season, which is looked upon by the fishermen and others concerned as a great factor in their year's earnings, was this season almost entirely suspended owing to the outbreak of war, only 6 steam drifters and 1 motor boat proceeded to that coast, while in the previous year 276 steam drifters, 9 motor, and 60 sail boats comprised the district fleet. The earnings of the steam drifters employed this season ranged from £400 to £500, while the motor boat earned £350.

The boat-building trade was unusually brisk during the year, 14 steam drifters were launched in the district, while 4 others are ready to launch, but in the meantime are delayed owing to the outbreak of the war.

Navigation classes continue to be held throughout the district, and at an examination of fishermen in March certificates were granted to 4 extra masters, 21 masters, and 39 mates. The young fishermen are taking full advantage of these classes every opportunity they get, and are very anxious to obtain their master's certificates.

The war, which broke out when the herring fishing was at its height, has had a most detrimental effect in this district. The fishermen were

forced to return home with reduced crews to wait developments, and after a time, as there were no prospects of the fishing being continued, the bulk of the boats were laid up for an indefinite period. A few boats subsequently tried the English coast for a short period, but the waters there were heavily mined, and the disaster to the "Barley Rig" terminated the season there. The loss of earnings caused by the war is very considerable. In the previous year the drifters' earnings averaged £2000 per vessel, whereas for the present year the average earnings amount to only £700. The earnings of workers in other branches of the industry have been similarly affected, and the prospects for the future are not too favourable

STATEMENT showing the increase of Steam Drifters in the District during the past 5 years, with their value, also Area of Netting, and length of Bush Rope, Buoy Ropes, and Stoppers.

Year.	Steam Drifters.				Area of Nets.	Length of Bush and Buoy Ropes, &c.
	No.	Value.	Fishing Gear.	Total.		
		£	£	£	Sq. Yds.	Yds.
1910 . .	236	590,000	88,524	678,524	21,002,400	934,560
1911 . .	247	617,500	92,134	709,634	21,657,000	978,120
1912 . .	257	642,500	97,140	739,640	23,230,800	1,017,720
1913 . .	276	662,400	104,080	766,480	24,873,600	1,092,960
1914 . .	298	685,400	112,392	797,792	27,122,400	1,180,080

STATEMENT showing the decrease in the First-class Sail Boats in the District during the past 5 years, with their values, also Area of Netting, and length of Bush Ropes, Buoy Ropes, and Stoppers.

Year.	First-class Sail Boats.				Area of Nets.	Length of Bush and Buoy Ropes, &c.
	No.	Value.	Fishing Gear.	Total.		
		£	£	£	Sq. Yds.	Yds.
1910 . .	320	124,925	68,512	193,437	15,910,200	1,036,870
1911 . .	310	118,145	67,105	185,250	16,358,400	1,004,470
1912 . .	286	108,885	63,011	171,896	16,029,600	931,680
1913 . .	272	105,300	61,934	167,234	15,422,400	881,280
1914 . .	239	93,590	54,932	148,522	13,296,000	774,360

JAMES STEWART.

Fishery Officer.

FISHERY OFFICE,
BUCKIE, 12th January 1915.

Findhorn District.

As the fishermen of this district are so largely dependent on the success of the herring fishing prosecuted from the principal centres on the Scottish

and English coasts, the year 1914 proved a disastrous one owing to the outbreak of war in the beginning of August, which practically suspended operations on the East Coast.

A considerable portion of the summer season was thus lost, which reduced earnings by one half as compared with the previous season. The loss of the English fishing season was, however, even more severely felt, as may be realized from the fact that while in 1913 the sum of £94,400 was earned by the district fleet of 132 vessels, the proceeds of last season from this source amounted to only £420 earned by one steam drifter.

The returns of fish landed in the district, which, however, afford no criterion of the general prosperity of the industry, show an increase in quantity and value respectively of 13,583 cwts. and £2774 as compared with 1913, a result which was largely due to the better results obtained at the herring and sprat fishing at Inverness, which was a decided failure during the previous year.

The means of capture returns reveal a steady progress in the acquisition of mechanically-propelled craft, the number of steam drifters and motor boats showing net increases of 10 and 3 respectively. Boat-builders were unable during the early part of the year to cope with the demand for steam vessels, and several second-hand steam drifters were bought from English owners. Motor engines of 55 to 60 h.p. were installed in three of the large sailing boats, the number of the latter craft showing a reduction of 12 compared with the previous year. The increased attention devoted to line fishing after the outbreak of war was responsible for a slight addition to the number of second and third-class boats.

Two-thirds of the district fleet of steam drifters were employed at the winter herring fishing in the beginning of the year, operations being prosecuted in the Minch and off the Sutherland and Caithness coasts. Although a large quantity of fish was landed, the results were not particularly remunerative, the average earnings being estimated at £240 per vessel. 1760 crans were landed in the district, of which over 1300 barrels were cured for exportation.

The summer herring fishing was prosecuted by a fleet of 132 steam drifters, 8 motor, and 70 sailing boats, and, as usual, the catches were landed at the large centres, chiefly Wick and Stronsay, landings in the district being wholly confined to week-end arrivals. Fair results were obtained in June, but a scarcity of fish was experienced during July. Hopes were entertained that the leeway might be made up during August, but on the outbreak of war it was realized that these hopes were doomed to disappointment, and that the herring industry had entered on an unprecedented crisis. Curers at once suspended operations, and owing to the large number of fishermen who as Naval Reserve men were called up crews were disorganized and fishing was practically given up, the earnings, as already indicated, amounting to only half those of the previous season. A few crews proceeded to the West Coast, but not until the last two months of the year were results successful. At the close of the year East Coast boats were prohibited by the Admiralty from continuing operations on the West Coast. This fishing promised to be most remunerative, several crews having earned from £400 to £800 at Mallaig.

At the beginning of the crisis fears were entertained that distress might result among those dependent on the industry owing to unemployment, but it is satisfactory to report that at the close of the year very few were unemployed. It is estimated that nearly a fourth of the resident fishermen are serving with the Naval and Military forces, 300 are employed at the naval base at Cromarty, nearly 200 are employed on district craft chartered by the Admiralty, 600 were employed between herring fishing on the West

Coast and line fishing in local waters, while a considerable number are scattered over the country at various other employments. Should the restriction by the Admiralty on the West Coast fishing be continued, it is hoped that the local fishermen affected will be employed at cod-net fishing in the Moray Firth.

Cod-net fishing was prosecuted during February and March with rather indifferent results. The largest fleet at work numbered 32 steam drifters and 34 sail boats which operated on the usual fishing grounds north and north-west of Lossiemouth. There was a good demand practically throughout the season, prices ranging from 18s. to 66s. per score, with the result that the great bulk of the catch was dispatched in a fresh state to the southern markets. Compared with the previous season the total catch showed a shortcoming of 6609 cwts. and £2521 in quantity and value respectively.

At Inverness the herring and sprat fishing was prosecuted with considerable success during the last two months of the year, the financial results being the best obtained since 1907. The largest number of boats operating was 45, of which the majority belonged to the adjoining district of Cromarty. The premature close of the English fishing caused an excellent demand, and prices for herrings ranged from 12s. to 46s., and for sprats from 10s. to 40s. per cran. The earnings of the small boats employed ranged from £100 to £300. Of the sprats 1840 barrels were preserved with a preparation of sugar and spice, and were shipped to Leith for exportation to Sweden. The remainder of the sprats and the entire herring catch were, however, disposed of in a fresh state. Compared with 1913, which was, however, an unusually unproductive season, the increase in quantity and value respectively was 17,399 cwts. and £6388.

From 40 to 70 boats were employed at line fishing, the maximum number being at work from August onwards. During the early part of the year landings showed a shortcoming, but with the increased number of boats which carried on operations during the latter part of the year, together with a slight improvement in the catches, the landings and value show an increase of 2435 cwts. and £1455 compared with the returns for 1913. Despite the fact that a larger proportion than usual of the catches consisted of small haddocks, prices were well maintained, particularly so during the last months of the year, when fishing operations were so much restricted in the North Sea, and so many trawlers were withdrawn from fishing operations.

The boat-building trade was particularly brisk previous to the crisis, 4 steam drifters being built at Lossiemouth, and several small sailing boats, while 4 steam drifters were built at Inverness. Prospects during the continuance of the war are exceedingly dark, with the result that most of the workmen have temporarily removed to the larger centres. Coopers were all employed previous to August, but since less than half the number have been employed at their own occupation, and the individual output has been considerably restricted by employers.

Fortunately no life was lost in connection with the industry. Four sail boats were wrecked and three steam drifters were considerably damaged during the year. Cod-net gear was frequently damaged by foreign trawlers during the spring months, but the loss of herring fishing gear was considerably less than in previous years owing to the restricted operations.

WILLIAM SINCLAIR,
Fishery Officer.

FISHERY OFFICE,
LOSSIEMOUTH, 6th January 1915.

Cromarty District.

The extraordinary situation created by the outbreak of war, and the consequent collapse of the herring fishery on the Scottish coast, had such an adverse effect on the earnings of fishermen that, when compared with recent years, these show a considerable decrease. A number of sources of employment became available, however, which happily provided fishermen with remunerative employment at home. The chief of these were naval activity at Cromarty and Invergordon, construction work on the Cromarty and Dingwall Light Railway, and, not least important, a successful sprat and small herring fishing in the Beaully Firth, in which, however, the Avoch fishermen alone participated. The first two of these factors had a prejudicial effect on the local small-line fishing, but in consequence of the restrictions placed on the movements of fishermen this branch would have suffered in any case.

In accordance with the custom prevalent in recent times, the fishermen in this district directed their attention chiefly to drift-net fishing for herrings at the principal centres. Fishing in home waters, in ordinary circumstances, is practised by the able-bodied men only for short periods between the herring seasons, and paying catches of small-line fish have been so difficult to obtain of late that fishermen readily abandon the work for more remunerative employment ashore and afloat. Various opportunities in these directions were presented during the year, as indicated above, of which the majority availed themselves. Practically all the active fishermen, men and boys, belonging to Cromarty and neighbouring creeks were employed by the Admiralty in one capacity or another. Some were engaged as deck hands and firemen on board tugs, water carriers, and other auxiliary craft, and the greater number were turned to coaling and other duties on shore.

The decrease in the local catch is in proportion to the number of men withdrawn. The average wages earned were fully as high as could have been derived from haddock fishing. The minimum wage for men ashore was 40s. per week.

The only men in the district who could be said to have suffered material loss by the war are the owners of first-class boats belonging mostly to Avoch. The abrupt termination of the herring fishing in August sent these men home with abnormally low earnings. They, however, were not so unfortunately situated as a number of fishermen under similar circumstances at other parts of the coast, because many found employment at Invergordon and Cromarty, and others turned to sprat and herring fishing in the Beaully Firth. At the commencement this fishing languished, and many laid up their boats and joined their comrades at Admiralty work. In November the fishing revived, and these men returned home and shared in a very remunerative season. Several crews, of whom 30 were engaged, grossed up to, and over, £200 for the season from September to December. This satisfactory result compensated fishermen to a large extent for the unprofitable season on the Aberdeenshire coast.

At the mobilisation of the Naval Reserve 168 district fishermen answered the call. The majority of these were serving at the East Coast herring fishing when called up. In addition to that number, about 160 more were employed by the Admiralty in various operations.

Until the cessation of hostilities the landings in the district are bound to be considerably below the normal, and unless the war ends before the advent of another summer herring fishing season, the owners of large sailing boats will be in an unfortunate position. But from circumstances arising out of the state of war, the majority of the fishermen should have

little difficulty in obtaining employment in the vicinity of Cromarty at a fair rate of pay.

Including the crews of 17 district boats and hired hands, about 380 men were absent at the summer herring fishing. The season on the English Coast was entirely neglected. Fourteen boats averaged £180 at Castlebay, and 17 averaged £97 on the East Coast of Scotland. Three steam drifters, manned entirely by district crews, averaged £500 at the summer fishing.

The aggregate earnings of the crews of local boats and hired men amounted to £15,000, or £10,700 less than in 1913. Included in the above are the earnings from winter fishing in the Beaully Firth. Compared with the preceding year the decrease is of large amount, but 1913 was an exceptionally good year.

The fisher girls, who engage as gutters and packers, also suffered from the dislocation following the declaration of war. The earnings of the 240 who went to the early fishing were over £1000 less than in 1913. Only 27 were employed on the coast of England, in comparison with 154 in the previous year. Here the difference in the earnings was over £2600. Occupation as domestic servants was readily found.

For the second successive season the results attendant on cod-net fishing have not been so good as to encourage a rapid development in this connection.

The changes in the means of capture were slight, and not of a progressive nature. The fleet of first-class boats remained the same, but there was a reduction of 4 in the number of second and third-class boats. It is hoped that the deflection of men to other than fishery pursuits will only be of a temporary nature, and that after the war they will resume their ordinary vocation. Fishermen show no disposition to invest in motor engines.

The abnormal conditions which diverted fishermen from small-line fishing to other occupations, such as labouring at local construction work in 1913, were accentuated in the year under review by the remunerative employment offered by the Admiralty. Only a very small part of the fleet remained at work at the close of the year. The arrivals were 421 fewer than in 1913, and 2559 less than in 1912. In direct contrast to the preceding year there was a predominance of small haddocks in the catches. The landings throughout were barely sufficient to meet the demand for local consumption. The gathering of whelks in spring for dispatch to London added a small amount to the revenue.

The fisher lads who attended the evening continuation classes for the teaching of navigation and cookery during the spring months made good progress in both departments. Arrangements were made by the School Boards to re-start the classes in October, but owing to the great demand for labour locally, none of the youths came forward. When conditions again become normal, it is hoped that the study of navigation and practice in cookery will be resumed.

For the second year in succession there was total immunity from loss of life, and the loss on gear and damage to boats were below the average.

All the fishery barometers in the district are in good order, and are appreciated by those interested.

ALEX. E. M'KENZIE,

Fishery Officer.

FISHERY OFFICE,
CROMARTY, 6th January 1915.

Helmsdale District.

In the year 1914 the fishermen of Helmsdale district carried on the line, cod-net, and lobster fisheries in local waters in much the same manner as in the preceding year. The results of these fisheries were generally unsatisfactory. The returns show when compared with those of the year 1913 a decrease of 2118 cwts. in the total quantity of white fish landed. Owing to higher prices for fish generally, and to an increased catch of crabs and lobsters in 1914, the decrease in the total value of all fish returned for the district is not so pronounced, and amounts to only £401.

The means of capture returns show as compared with those of 1913 an increase of 2 in the number of motor boats—a motor engine having been installed into a large herring boat belonging to a crew in Dunbeath, and one into a second-class boat for a crew in Brora. The former was a 55 h.p. “Gardner,” and the latter a 6 h.p. “Kelvin.” These installations cost £600 and £70 respectively. There was also an unimportant increase in the number of second- and third-class sailing boats—principally boats which had been purchased second-hand from other districts. These returns show no other changes of importance.

The small-line and hand-line fishings each received during the year 1914 more than the usual amount of attention from the fishermen of this district, but, as a rule, the results were poor, and compared unfavourably with those of the previous year.

The results of the cod-net fishing which, as usual, was prosecuted in the spring, chiefly by the fishermen of Golspie, show, when compared with those of 1913, a decrease in the quantity, but a slight increase in the value, due, as already indicated, to prices having been higher in 1914 than in the previous year. Besides cod, the boats working at this fishing landed 430 cwts. of skate, as against 213 cwts. in 1913.

Only 2 steam drifters belonging to this district were employed at the winter herring fishing. They met with only moderate success, their gross earnings amounted to £330 and £410 respectively.

The Dunbeath motor herring boat, referred to above, was employed only at the summer herring fishing. None of her crew was a naval reservist, and they were thus able to continue the fishing until the first week of September. The results were, considering the season, fairly satisfactory. Her gross earnings amounted to £450 and her running expenses to £77 for 14 weeks’ fishing. A second-class motor line boat, which belongs to the same owners, was employed in 1914 from 1st January to 1st May at line and cod-net fishing, and from 21st September to 31st December at line fishing. For the 2 periods her gross earnings amounted to £293, and her running expenses to £20.

In the winter of 1913-14 a number of the fishermen of Helmsdale and Embo attended navigation classes arranged for by the School Boards of these villages, and at examinations held in the spring they were successful in securing the following Board of Trade certificates of competency:—certificates for extra skippers, 1; skippers, 4; and second hands, 5. Owing to so many of the young men having been called away to serve in the navy no classes were formed for the winter of 1914.

In November a young fisherman belonging to Helmsdale lost his life through falling overboard while his boat was lying in Wick harbour.

Seeing that those connected with the fishing industry in this district depend chiefly, not on the local fisheries, but on the herring fishings on other parts of the coast, the war, which brought the summer herring fishing to a close six or eight weeks earlier than usual, and made it impossible for them to participate in the English fishing (no boats or fishermen from

this district were employed at that fishing in 1914), affected them very severely in the way of reduced earnings. In this connection it may be mentioned that the aggregate earnings of the fishing vessels belonging to this district which were employed at herring fishing amounted in 1914 to £6158, as against £18,060 in the year 1913. The estimated combined aggregate earnings of the fishermen who went as hired hands, and of the women who went as gutters and packers to the herring fishings, amounted in 1914 to £8108, as against £20,052 in the year 1913. Owing to the short summer herring fishing and to restrictions on their work when employed in the last quarter of the year at barrel-making, the earnings of coopers were also in 1914 considerably less than in the previous year. The one firm of fish-curers still belonging to this district, in common with the fish-curers of other districts, lost considerably on herrings sold since hostilities began, and cannot but feel the greatest anxiety with regard to consignments sent by them to Germany before war was declared.

When war was declared 96 of the district fishermen, who were naval reservists, were called out for service, and 4 have since joined the navy, making in all 100 men, of whom 54 belong to Embo, and the remainder to Helmsdale, Brora, and Golspie.

Although in one way or another this district has suffered very considerably in consequence of the war, the fishing communities in it have still great reason for thankfulness. There has been practically no enforced unemployment among the men connected with the industry, and no pronounced cases of distress.

At the end of November, 33 of the district fishermen found remunerative employment aboard locally-owned steam drifters which had been chartered by the Admiralty. Upwards of 20 fishermen have been employed since the commencement of the war as labourers at the Admiralty Works, Cromarty. The remainder of the fishermen were practically all employed at line fishing, and, so far they have been able to fish from 1 to 5 miles off the coast without any interruption. The coopers also have been, since the middle of October, all employed at barrel-making, but earning, as already indicated, only about two-thirds of their usual wages.

With regard to the future the prospects for the district are rather gloomy. It is doubtful if there will be a summer herring fishing in 1915. Should there be no summer herring fishing, the fishermen would then find it very difficult to earn a living wage at line fishing, as at that season of the year white fish are usually very scarce on the fishing grounds, and of little commercial value. It is also to be expected that even if the conditions admit of carrying on the summer herring fishing, the countries to which cured herrings are usually sent will be so impoverished in consequence of the war that fresh herrings would have to be sold so cheap that little would be left for owners of boats or the fishermen.

For the first 3 or 4 months of 1915, however, should they be allowed to continue the line fishing for that time, the fishermen should be able to earn good wages. Haddocks and codlings are usually fairly plentiful during those months, and as so many trawlers and other fishing vessels have been employed by the Admiralty, and fishing facilities so much restricted, it is expected that fresh fish will command high prices in the markets. It is also to be expected that fish will soon be much more plentiful on the fishing grounds of the district, in view of the fact that, since the commencement of the war, there has been practically no trawling in the Moray Firth.

ALEXANDER WOOD,
Fishery Officer.

FISHERY OFFICE,
HELMSDALE, 7th January 1915.

Lybster District.

For a number of years past this district, which is one with a very limited coast line, has been gradually declining in importance, and the results during the year under review were extremely disappointing.

As regards the means of capture, a large second-hand Zulu boat was acquired by one of the district crews, but otherwise no change worthy of note took place. No new methods of fishing or developments of any description have been introduced.

A long continuation of unfavourable weather, both in the early and latter months of the year, was largely accountable for the unfavourable results. Owing to the class of craft made use of by the fishermen of the district, and the small harbours from which they operate, their calling can only be prosecuted under somewhat favourable weather conditions.

At one time the winter herring fishing in this district was looked forward to as a time of activity and success. On no occasion since its inception has that branch of the industry been such a pronounced failure as in 1914. Certainly fishermen had few opportunities of getting to sea owing to the continuance of south and south-east breezes, but when it was possible for them to venture out there was an absence of fish upon the coast, and in consequence there was nothing landed.

For the prosecution of the summer herring fishing there was about the same number of boats fitted out as has been the case for several years past. The only curer now remaining at Lybster had engaged coopers and female workers to deal with their catches. Fishing was prosecuted intermittently during June and July, but with most disappointing success.

It is chiefly inshore fishing that is pursued, and during the time that operations were continued there was a great scarcity of herrings upon the local grounds. Had the work been continued into August and September the fishermen might have reaped some reward for their labours.

Upon the outbreak of war the fishing was abandoned, as there was little prospect at that time of a market for cured herrings being found, seeing that access to the German and Russian ports was cut off. In the district the landing of herrings during the year amounted to 50 cwt., valued at £12, compared with 1971 cwt., valued at £791 for the previous year.

The catch of white fish was only 50 per cent. of that of the previous year. There was a considerable decrease in cod, and a still larger decrease in haddocks. At the period of the year when line fishing is most vigorously pursued, interruptions frequently occurred, and along with that there was a lack of fish upon the usual grounds.

Crab and lobster fishing was engaged in to much the same extent as in the previous year. Only about one-third of the number of lobsters were caught, however, but the catch of crabs showed a decided increase.

One of the Lybster crews again hired a small motor propelled boat, which was employed for a few months at line fishing. That venture, unfortunately, was not a remunerative one, as the earnings were not sufficient either to pay the boat owner for the outlay on his craft or leave the crew with a satisfactory return for their labour.

In this district every succeeding year sees a decrease in the number of men who engage in the fishing for a livelihood, or augment their income by devoting part of their time to its prosecution.

During the first six months of the year there were 12 coopers employed at barrel-making in Lybster, and they all had an opportunity of being fully employed. Most of the barrels produced were intended for use in other districts. With the stoppage of the herring fishing early in August the

demand for that product ceased, and consequently considerable stocks remained on hand, and the construction has meantime practically ceased.

Under existing conditions a good many of the fishermen of the district now make a practice of engaging as hired hands on board of boats that fish at Wick during the summer months. The large boats owned in the district also operate from Wick at that season of the year. A large portion of the earnings of fishermen are therefore now earned outwith the district.

The harbour at Clyth, during the past two years, sustained considerable damage from severe south-east gales. Recently it was almost entirely wrecked, and in its present condition it affords little protection for fishing boats. Those men who make use of that harbour fish chiefly for local consumption.

Most of the men of the district connected with the fishing are well advanced in years; notwithstanding there are a few who are serving their country in various capacities at this time of war.

No loss of life occurred during the year in connection with the industry, and very little loss of fishing gear was sustained.

The fishery barometer at Lybster harbour is always in a good serviceable condition.

JAMES RITCHIE.

Fishery Officer.

FISHERY OFFICE,

WICK, 5th January 1915.

Wick District.

This district continued to maintain its position amongst the leading fishing centres of Scotland, chiefly through the importance of its herring fisheries, although operations in August were greatly disorganised, and conducted by a comparatively small fleet of boats on account of the outbreak of war.

The catch of herrings was a third greater and the value one-fourth less than in the previous year. With the exception of herrings, mackerel, and lobsters, there is a considerable decrease in the quantities of all the other classes of fish caught when compared with the figures of the preceding year.

In this district the year under review commenced with the most successful winter herring fishing ever experienced. On the 8th January a start was made by a few boats on the Orkney grounds. Southerly winds compelled them to resort to the north coast of Sutherlandshire, and there herrings of good quality were met with in abundance, and for two months afterwards the fishing was regularly and successfully engaged in.

A well-equipped fleet of 60 steam drifters and motor boats was at work. The composition of that fleet, however, varied throughout the season, as crews wrought between Stornoway and Wick, and while some crews discontinued operations, others were fitted out. Exceedingly favourable weather prevailed throughout the whole season.

The shoals were met with in greatest abundance from Whiten Head to Strathy Point, and so dense were they that considerable losses of netting were incurred through weight of fish. To begin with, the fish were of good quality, and continued so up to near the end of February. The season opened with extremely high prices, but owing to the heavy supplies they ultimately receded to a more moderate figure. During the season the range was from 5s. to 80s. per cran, with an average of 14s. 8d.

The landing of individual takes ranging from 120 to 160 crans was of

common occurrence. In several respects all former records were eclipsed. A catch of 240 crans was delivered from a Banffshire steam drifter, which was no doubt the largest catch ever delivered in the district from one boat. Daily averages of from 50 to 80 crans were common. Takes of considerable value were landed, the highest being £260.

For the season the total landing was 46,251 crans, valued at £33,907. With the exception of some small and odd shots delivered at Scrabster and Thurso, the whole of the catch was dealt with at Wick. Had it not been that steam and motor propelled craft were employed, it would have been impossible for Wick to have benefited as it did from the produce of the northern grounds. Those crews that prosecuted the fishing throughout the whole season had earnings of from £500 to £1200, with an average of about £700.

It was for freshing, kippering, curing, and bait that the catch was utilised. With the exception of a small quantity cured all the catch had to be conveyed south by rail, and in accomplishing that task the resources of the railway company were severely taxed. To the railway company it should have been a source of considerable profit. It is understood that curers, fishermen, carters, and other workers all greatly benefited.

For the working of the North Coast, southerly winds are the most favourable, and with little variation southerly winds prevailed throughout the greater part of the season—a fact which in great measure accounted for the success attained. The bulk of the catch was handled by the local curers. Strange to say, large quantities of fish were forwarded to Yarmouth to be converted into reds and bloaters. One notable feature was the presence of a number of Yarmouth and Lowestoft crews who pursued the fishing along with the local fleet.

All the fish caught on the North Coast were not landed in the district, as many heavy takes were conveyed by steam drifters to Stornoway, and various East Coast ports of Scotland and England.

The winter herring fishing was followed by cod-net fishing, but only 5 district crews engaged in it, owing to the success which attended the herring fishing. For several weeks a number of Banffshire crews also landed their takes at Wick. There was a scarcity of fish upon the grounds within easy reach of Wick, and at the same time the fish caught were not of great weight or of superior quality. The total catch was only 60 per cent. of that of 1913. Higher prices compensated for the deficiency to some extent, as the average price per cwt. was 11s. 5d., as against 8s. 11d. in the previous year.

Varied and disappointing experiences were met with by all who were connected with the summer herring fishing, and to most it was a season of adversities. It commenced on the 14th May, and continued up to the 5th September. During that period, however, the fleet varied considerably in number. For a great part of the season very partial results were obtained.

Fish were not met with in great abundance on the nearer grounds during the first nine or ten weeks of the season. Nevertheless, up to the first week of July, some of the steamers had very fair success, as heavy takes were secured on the distant grounds situated about sixty to eighty miles east, although to accomplish that long distance heavy coal bills were incurred. For several weeks in July light irregular fishings were landed. During most of the season light baffling winds and calms prevailed, so that sail boats had few opportunities of reaching the offing, and to them in general the venture was a disappointing one. The distant grounds were more than even the motor boats could comfortably overtake.

Matters were commencing to improve about the end of July, but the hopes of the trade were then blasted by the outbreak of war early in

August. What first interfered with the trade was the mobilising of the Royal Naval Reserve on the 3rd of August. At that time there were well-nigh four hundred boats in Wick harbour, few of which had not members of that force as part of their crew.

This was the first blow struck at the industry. After that came the difficulty of effecting insurance against war risks. It appeared then as if the fishing was to be completely stopped, and had it not been that one or two crews kept going and located a shoal of fish about 20 to 27 miles E. by N. of Wick, thereby inducing others to fit out again, it would have been concluded. For two or three weeks in August a very successful fishing was made by a small fleet upon grounds at a convenient distance from Wick. Indeed this port was the only one where operations were then being conducted.

The indications were that had the whole fleet been engaged it would have been the most remunerative period of the season. Throughout the season fish of good quality were generally obtained. Prices varying from 6s to 44s. 6d. per cran were realised, while the average price was 23s. 10d. compared with 38s. 6d. in the previous year.

Although operations were very much curtailed in August, the summer catch was 113,799 crans, valued at £135,614, compared with 108,624 crans valued at £209,202 for the corresponding period of the previous year.

When war broke out curers had 50,680 barrels of cured herrings on hand. The outlook then was very gloomy, as they were cut off from the German markets and those of Russia in the Baltic. Curers and herring merchants had also herrings in both countries for which payment could not be obtained. Buyers of cured herrings arranged with curers to cancel purchases of which delivery had not been taken.

Shipments have since been made to Archangel, Malmo, Bergen, and New York, so that stocks have now been reduced to about 14,000 barrels. Curers were left with considerable stocks of empty barrels and salt, and as the herring fishing on the English coast was not prosecuted to any great extent those surplus stocks could not be utilised.

By the interruption of the fishing a good many people were deprived of their ordinary employment. Fishermen, coopers, gutters and packers, labourers and carters were all seriously affected. Most of the male section of the employees have, however, been successful in securing temporary employment. A considerable number of the fishermen were mobilised in the Royal Naval Reserve, others were employed on steam drifters serving as tenders at the naval base of Scapa, and on board of motor boats used for patrol work.

A number of fishermen also found employment in coaling war ships. Of coopers, carters, and labourers, a goodly number took up military service, while others also found remunerative employment in connection with the coaling of war vessels at Scapa. The female employees have certainly fared worst, as the services of very few were required at the English ports.

In the summer season steam drifters had earnings of from £380 to £1100, with an average of £700. Motor craft had from £380 to £785, and averaged £480, and sailers had from £40 to £300, averaging £180.

The means of capture of the district were improved to an appreciable extent by the addition of nine second hand steam drifters to the Wick fleet, and by ten of the large sailing boats being equipped with motor engines. With the additional number of steam drifters a substantial increase of netting occurred. There was practically no increase in the number of small motor boats, which are used for line and lobster and crab fishing. At several of the creeks these craft have been doing fairly well, but at Wick, where they were first introduced into the district, they had

not a very remunerative year, and some were out of use for a good part of the year.

The dispatch of fresh herrings, put up in ice and salt, to Hamburg has now become an established branch of the trade. Up to the 1st of August one firm dispatched two boats weekly, and for several weeks in July another firm was also engaged in the same trade. Altogether 6330 crans were exported by them. The quantity for the previous year was 7733 crans.

A comparatively small quantity of herrings was crown branded during the past season, owing, to a great extent, to the interruption of the fishing in August, and the small catches delivered during the greater part of July.

On the whole, line fishing was not prosecuted with great success during the year. On many parts of the coast fish were not at all plentiful, and the breezy weather experienced in the early and latter months of the year hindered operations to a very great extent.

At a number of creeks in the district crab and lobster fishing is made a speciality of by the fishermen. To judge from the results obtained for a number of years past, it does not appear as if there is much scope for development, as the results do not vary much from year to year. At Keiss, where crab fishing is extensively prosecuted, motor boats are now made use of to advantage. The catch of lobsters shows an increase over that of the preceding year, while that of crabs has declined. The total value of shell fish, however, is about the same.

Only one of the steam drifters belonging to the district proceeded to Yarmouth. This vessel was about five weeks from home, and during that time caught 428 crans, which realised £363. When on the passage south, the crew rescued the crew of a naval biplane, in the vicinity of the Bell Rock, and afterwards towed the machine to Inchkeith, in the Firth of Forth.

Half a dozen curers from this district had small staffs of workers at Yarmouth and Lowestoft for a few weeks, but they did not conduct a large volume of business.

From January to May barrel-making was conducted on an extensive scale, the number of coopers employed exceeding that of any former year, owing to the stocks having been depleted by the successful fishing at Yarmouth in 1913, and to the demand for barrels at Wick and Stornoway during the winter fishing. At the close of the year about 120 coopers, chiefly the older men and apprentices, were employed on a restricted output. In the spring 490 were employed, with as much work as they could overtake.

Three fishermen lost their lives during the year. One was knocked overboard from a motor boat, while prosecuting the herring fishing, and two were lost by the swamping of a small motor boat employed at line fishing.

When last inspected, the fishery barometers, of which there are a dozen in the district, were all in good serviceable condition.

JAMES RITCHIE,
Fishery Officer.

FISHERY OFFICE,
WICK, 6th January 1915.

Orkney District.

Considering the far-reaching effect of the great European War upon the various branches of the fishing industry, and bearing in mind also

that, owing to the strategical situation of the Orkneys, fishing operations in certain parts of the district had to be completely suspended from the commencement of the war, it was inevitable that the fisheries should suffer severely.

Compared with the figures for 1913 the financial results show a decrease of £65,518.

All the different branches of the industry were more or less affected, either directly or indirectly, but the people who were the hardest hit were those whose livelihood depended on the herring fishery and the curing industry.

Thanks to the successful seasons most of the curers experienced at Lowestoft and Yarmouth in the previous two years, the curing trade was in a wonderfully healthy condition when the crisis arose. Had it been otherwise the initial strain, caused by the tying up of the proceeds of sales of herrings on the Continent, and also of large quantities on this side, would have been more than most of the curers could have supported.

As matters have turned out, there is every reason to believe that, although the loss sustained by all was considerable, and although the resources of many have been strained almost to breaking-point, the trade as a whole will easily survive the temporary set-back.

The summer herring-fishing, which is by far the most important branch of the fisheries in this district, and is becoming of greater importance every year, opened during the week ending 23rd May, and was continued with satisfactory results till the beginning of August, when the war brought operations to an abrupt finish.

The fleet operating was composed chiefly of stranger boats, and varied in number from 30 at the opening of the season to close upon 300 at the finish; the average number of boats at work during the eleven weeks' fishing was 180, as compared with 145 in 1913.

The ports from which operations were conducted were Stronsay, Kirkwall, Holm, and Burray, but, as in former years, Stronsay was the chief centre at which herrings were landed, and of the total catch of 93,833 crans landed in the district, 84,587, or 90 per cent., were landed at Stronsay, while the remaining 10 per cent. was pretty equally divided among Kirkwall, Holm, and Burray. In 1913 the proportion of the catch landed at Stronsay was 85 per cent., and in 1912, 80 per cent. From these figures it is apparent that the tendency towards centralisation is increasing every year, and the prospect of any great development of the less important herring-fishing creeks in the district is remote.

Although the quantity of herrings landed at Stronsay may be considered fairly good for the short season, the figures would have been greatly exceeded were it not for the unsatisfactory state of the channel during the early part of the season.

Owing to the congestion at Stronsay a fair proportion of the sailing craft continue to operate from Holm, Burray, and Kirkwall, but the number of these is diminishing year by year, while on the other hand the number of steamers is rapidly on the increase. Not many years ago, sail boats landed practically all the herrings in the district, while during the year under review 85 per cent. of the catch was landed by steamers, 2 per cent. by motor boats, and 13 per cent. by sail boats. These figures tell their own tale; they clearly demonstrate the fact that a sail boat will soon be a thing of the past.

The fleet of sail boats suffered greatly during the past season owing to calm and foggy weather. For instance, during the week ending 20th June, 130 drifters landed 16,411 crans of herrings, which sold at an average price of 23s. 2d. per cran; four motor boats landed 363 crans, at an average price of 24s. 3d.; while 60 sail boats were only able to land 2023 crans,

which sold at an average price of 14s. 4d. per cran. Many of the sailers were only able to make one trip to sea for the week, while some of them had to throw their herrings overboard owing to their fish having deteriorated. One crew having a shot of 120 crans—unfortunately their first and only good shot for the season—had to dispose of them in this way. On 18th June over 400 crans had to be dumped. Thus it will be observed, that while many drifters each earned over £200 for the week, their average earnings being £150, and while the average earnings of motor boats was £110 for the week, the average earnings of sail boats was only £24.

Up to the present the district fishermen have made no movement to have motor engines for auxiliary propulsion installed into their herring-fishing boats, although the above figures plainly demonstrate the advantage of the motor boat over the sail boat.

The quality of the herrings landed during the early part of the season was not equal to that during the early part of 1913. Still fishermen received fairly good prices, and for May herrings the average price was 18s. 2d. per cran.

As the season advanced, however, the quality rapidly improved until the 25th of July, when it became excellent, and herrings were in keen demand at that date at from 43s. to 45s. per cran. At the beginning of the following week herrings were still selling at those high prices, but towards the end of the week, when the "war cloud" suddenly assumed a more threatening appearance, curers became alarmed and prices rapidly fell until Saturday, 1st August, when prices for excellent quality touched as low as 12s. per cran, while certain curers refrained from curing at any price.

With the calling out of the Reserve the fishing practically closed.

On Tuesday, 4th August, there were seven arrivals at Stronsay, with an average catch of 28 crans of excellent quality, which realised from 12s. to 14s. per cran, but after that date no more herrings were landed at the port. Fishermen returned to their home ports, and curers closed down their stations as quickly as possible.

Notwithstanding the fact that the fishing was brought to a close at a season of the year when the best results are generally obtained, the total catch landed exceeded that of the previous year by 2987 crans. On the other hand the value was £61,963 less.

The increase in the catch was mainly due to the fact that a larger fleet of boats operated from the district than during the preceding year, while the outbreak of the war was responsible to a great extent for the shrinkage in the value. The average price for the season was 26s. 3d., as compared with 40s. 10d. per cran in 1913.

It is, however, quite impossible to say to what extent the war affected the season's results. At the time the war broke out dense shoals of herrings of excellent quality were on the fishing grounds, and there was every probability that, had the fishing not been interrupted, the fishermen would have had a more prosperous season than during the previous year.

In 1913 the average earnings of the district boats was £500, while last year it did not exceed £210. Owing to the stranger fishermen being continually moving about and landing their takes at the different ports, and also to the fishing coming to such an abrupt finish, it is impossible to give the earnings of the stranger fishermen.

Fortunately most of the district fishermen who prosecute the herring fishing have crofts and do not entirely depend on the fishing for their livelihood. Many of those who were thrown temporarily idle when the crisis came, soon found employment on farms and also with the Admiralty while 45 fishermen were R.N.R. men and were called up to serve their country. Others prosecuted the lobster fishing.

Regarding the enforced close time, it will certainly be most interesting to watch what effect it will have upon the future supply of fish. For the first time since the introduction of steam into the herring-fishing fleet, the herring shoals were allowed to spawn undisturbed.

With the exception of 360 crans kippered at Kirkwall, and 3234 crans exported to Altona in a fresh state by a firm of "Klondykers," all the herrings landed were cured gutted. The total number of barrels cured was 113,119, as compared with 112,450 in 1913.

Luckily most of the curers shipped away their early cured herrings almost as fast as they were being cured, and when the crisis arose the stock on hand numbered 46,760 barrels, the bulk of which was of a good keepable quality.

Of these, over 12,600 were shipped coastwise to America, 10,977 were exported to Archangel, 18,297 to Norway, and there remained a balance on hand at 31st December of 4858 barrels.

The following table shows the development of the herring fishery at Stronsay from 1899 to 1914.

Year.	Total Quantity of Herrings landed.			Total Value.
		Cwts.		£
1899	4,648	807
1900	8,976	2,224
1901	23,279	4,334
1902	41,881	9,125
1903	28,839	7,098
1904	71,112	11,863
1905	83,716	17,449
1906	111,871	35,779
1907	124,609	41,350
1908	141,350	24,151
1909	138,930	52,214
1910	279,546	80,375
1911	345,894	118,733
1912	433,937	180,585
1913	273,297	161,297
1914	296,055	113,037

The total quantity of fish landed by foreign trawlers, which consisted chiefly of cod from Icelandic waters, amounted to 6885 cwts., valued at £2350, as compared with 6229 cwts. valued at £1671 in 1913. Prices for trawled fresh gutted cod averaged £9, 10s. per ton. Haddocks realised £7, and saithe £4, 15s. per ton.

Owing to an order issued by the Admiralty forbidding foreign vessels from landing in the Orkneys, Faroe smacks were prevented from landing their fish, and local curers and fishworkers suffered in consequence.

Line fishing by local fishermen was practically suspended during the last five months of the year owing to the movements of our war-ships, and there is a large falling off in the quantity of cod landed.

Of the shell-fish fisheries, lobster fishing is the most important. Lobsters appeared to be more plentiful than during the past few years, but, during the autumn months, the war had a depressing effect on the markets, and, as the prices obtained were only from 7d. to 1s. per lobster, fishermen did not prosecute the fishing with the same heartiness as in former years. The total number of lobsters caught is about the same as in 1913, but their value is £1316 less.

An interesting feature of the shell-fish fisheries was the opening of the Bay of Firth Oyster Fishery. At one time there was a flourishing oyster

fishery in the Bay of Firth, but as a considerable number of fishermen operated without restriction the fishery became ruined. During the past two years the present company bought and planted over two millions of the best kinds of oysters and intend planting millions more. The management of the fishery is in capable hands, and with careful nursing I have no doubt that in a few years' time this fishery will be one of importance and will give employment to a good many people. Towards the end of the year a few thousands of the oysters were put on the market and realised good prices.

With the exception of the drowning of a fisherman belonging to North Ronaldshay, who was knocked overboard by the sail, there were fortunately no fatal accidents during the year, and the loss to boats and fishing gear was small.

A. J. MUNRO,
Fishery Officer.

FISHERY OFFICE,
KIRKWALL, 5th January 1915.

Shetland District.

In common with those of most other districts, the fisheries of Shetland suffered severely through the outbreak of war. The herring fishing, which had, till then, been very good, was brought to a premature close, and the line fishing has since been neglected at most of the out-stations, owing to the fact that most of the younger men are now serving in the Royal Naval Reserve. As compared with 1913, the general results show an increase of 248,525 cwts. of white fish, but a decrease of £28,149 in the total value of all fish landed. The explanation of the lower average price for 1914 is to be found in the fact that a large proportion of the season's catch consisted of "early" herrings, and the herring fishing was stopped when prices would have been at their maximum.

The Means of Capture returns show a decrease in the number of sail boats of all classes. In the case of first-class boats this decrease has been going on steadily for the last half-dozen years. During that time the number of first-class sail boats has been reduced almost 50 per cent., and there is no prospect of this decrease being arrested. There were some changes in the motor fleet, but the number of boats, all skiffs of the second class, remained the same as in 1913. Four steam drifters were added to the local register, but one was withdrawn, leaving a net increase of three to the fleet.

The winter herring fishing opened in the end of January, and was continued with more or less regularity till about the end of March. The fleet was small, usually numbering from 10 to 15 steam drifters. Little success was attained till the middle of February, when a large shoal of herrings was located off Flugga, and, so long as weather permitted the crews to work, good catches, sometimes ranging from 80 to upwards of 100 crans, were secured. The best catch of the season, 150 crans, was landed at Lerwick on 26th March. The demand, on the whole, was weak, and prices low, ranging mostly from 8s. to 12s. per cran, and averaging only 9s. 4d. per cran up to the end of March, as compared with an average of 17s. 9d. per cran in 1913. Even at these low prices curers were reluctant to buy herrings for curing purposes. Over 4600 barrels were cured—a decrease of over 1000 barrels, as compared with the previous season—but curers had great difficulty in finding a market for these herrings. A few hundred barrels were sold in February at

17s. a barrel—a decrease of 8s. to 10s. a barrel as compared with the prices realised in 1913—and the balance lay on curers' hands till the opening of the summer fishing.

In April the landings were light, and consisted chiefly of surplus bait, as the crews were now mostly working great-lines. There was a good demand for these herrings, for bait for steam liners, and the average price for the month was upwards of 20s. per cran. For the summer herring fishing the fleet was later in gathering than in 1913, as it was well known that there was no great demand for early cured herrings. On 16th May the fleet numbered 80, and at the end of May 470 boats, steam and sail, as compared with 310 and 729 respectively in 1913. The fishing, however, turned out much better than the previous season; as June advanced this improvement was more marked; and in July the landings almost doubled those of the previous season. On the outbreak of war, however, stranger fishermen at once left for their own homes, and local men commenced to dismantle their boats. Spasmodic trials were subsequently made by one or two local crews, but little was added to the season's catch, although Dutch fishermen were securing great catches off the Shetlands all through August and September.

Although considerably below the previous season's figures, prices of fresh herrings were, on the whole, very satisfactory, with a steady upward tendency as the season advanced. With the exception of one or two shots of inferior quality, which had to be disposed of cheaper, the range of prices at the Lerwick auction sales was from 8s. to 45s. 6d. per cran. For the whole district the average prices for the summer months were:—May, 14s. 3d.; June, 22s. 10d.; and July, 30s.; and for the whole season slightly over 22s. per cran, as compared with 33s. in 1913.

There was a slight revival of the fishing at Baltasound, 10 curing stations having been opened for the early fishing season, and the catch amounted to 12,600 crans, as compared with 6 stations and 5600 crans in 1913. The fishermen worked under engagements at Baltasound, the only station in the district where the old engagement system survives. Seven curers opened stations at Hoswick, and 2 at Levenwick, the total catch at these 2 creeks amounting to about 14,000 crans. Seven stations were opened at Scalloway, but the landings at this port did not total 5000 crans for the season. Herring curing was also carried on at Uya-sound, Skerries, Whalsay, Grutness, Walls, and Hillswick—1 curing station being open at each place. The landings at these stations were generally below those for 1913, owing to the curtailment of the fishing season.

In the late autumn a shoal of herrings appeared in the narrow waters inside St. Magnus Bay. At first the local crofter fishermen only caught the fish for their own use, but in December the fishing was more vigorously prosecuted in Olnafirth, and nearly 600 crans were landed at Voe, the greater part of which was carted to Lerwick or Scalloway, to be kippered or used as bait. Those herrings were mostly matties or matfalls, and much smaller than the herrings usually landed in Shetland.

The total quantity of herrings landed in Shetland during 1914 was 273,493 crans, and the average price 21s. 9d. per cran, against 202,657 crans, and 32s. 9d. per cran in 1913.

Although the season had been a very good one up to the end of July, with every prospect of the final results being satisfactory alike to fishermen, curers, and workers, the unexpected collapse of the fishing changed the aspect of affairs. Eight locally manned steam drifters had gross earnings ranging from £440 to £780, and averaging about £610, as against an average of £1500 for the local fleet in 1913. Sail boats' earnings

ranged from about £400 downwards, a good few being below £100, and the average was about £200, against almost £500 in 1913. While, therefore, share fishermen had a poor enough season, owners of boats and nets were in a much worse position, most of them finding the balance on the wrong side at the settlement.

The market for cured herrings, which was in a rather depressed condition at the beginning of the season, steadily improved as the fishing progressed. The quotations at the end of each month of the fishing were as follows :—

	Lafull.	Full.	Matfull.	Mattie.
May . . .	26s.	24s.	20s. to 22s. 6d.	18s. to 20s.
June . . .	30s. to 33s.	26s. to 28s.	24s. ,, 26s.	22s. ,, 24s.
July . . .	44s. ,, 46s.	35s. ,, 37s.	31s. ,, 33s.	29s. ,, 31s.

The outbreak of war put a stop to all business with Germany, but throughout the remainder of the season some purchases continued to be made for America at declining rates.

No local vessels were fitted out for curing herrings at sea during the year under review. Fifteen small Scandinavian motor or sailing vessels, with stock and plant for curing mackerel on board, made Lerwick their headquarters during the summer, and their crews cured about 1500 barrels of mackerel, which they bought from British fishermen, and afterwards took home to Norway or Sweden. Local fish-curers also cured nearly 500 barrels on shore, in both cases a slight increase on last year's work. There was also some increase in the quantity of roused herrings sent to Hamburg.

None of the Shetland boats, steam or sail, went to the English fishing ; but a Lerwick crew went to Lowestoft and manned and worked an English drifter, making a fair enough season.

During the spring months the landings of great-line fish showed an increase, and up to the end of July the catch of cod, ling, etc., compared very favourably with the figures for 1913. With the collapse of the herring fishing, however, the landings of handline-caught fish ceased, with the result that the totals for 1914 fell short of the quantity landed in 1913 by about 6000 cwt. This decrease was more than accounted for by a shortage in the landings of saithe, while the catch of ling nearly doubled ; and, as prices all round were better, the value for 1914 showed a slight increase over the returns for the previous year.

Some improvement in the small-line fishing has to be recorded, the quantity being about 15 per cent., and the value almost 70 per cent. greater than in 1913. This improvement was entirely confined to the west side, especially to Scalloway Bight, where a heavy fishing was got by the motor boats in November and December, and, as the fishermen there are consigning their own fish to market, they benefited by the high prices current in Aberdeen. At Lerwick there was a considerable decrease in the quantity and value of haddocks, and at the North Isles stations this fishing was generally neglected.

Coopers had steady and profitable employment till the outbreak of war, when most of them were paid off, both from the curing stations and the barrel factories. Most of the younger men have since been serving either in the Royal Naval Reserve or the Territorial Force. After being closed for a few weeks, one of the barrel factories was reopened ; and, as resident fish-curers had been re-engaging a few men to make barrels, most, if not all, the coopers found employment after being but a short time idle.

Carpenters were well employed for the first 8 or 9 months of the year,

but work has been slacker since. Their work consists principally of repairs, and the building of small, open boats.

There were no serious casualties to the fishing fleet, but one fisherman lost his life through being knocked overboard by the sail. The damage to boats and the loss of fishing material were exceptionally light.

The teaching of navigation to fishermen and boys continues to receive great attention, and classes are still taught at a number of centres throughout the islands.

The fishery barometers are in good order, and are well attended to.

The work in connection with the new harbour extension is progressing favourably, and should be finished in the spring or early summer.

R. DUTHIE,
Fishery Officer.

FISHERY OFFICE,
LERWICK, 9th January 1915.

Stornoway District.

The herring fishing is the principal branch of the industry in this district, and it is carried on, mainly by stranger craft, practically the whole year round. At one time there used to be an interval between the seasons, but now there is none, except for a short time in April and May.

The returns for the spring or winter fishing constitute a record for quantity, exceeding the previous year's figures by 6714 crans. On the other hand, however, there is a decline in value of over £19,000, due to the inferior quality of the herrings taken in 1914. It is not easy to determine why one year's fish should be better than another's, still the fact remains. The best week produced 32,202 crans, while the highest week's catch in 1913 was 19,591 crans. In the former year the herrings were taken in the Minch from Cellar Head to Kebboch Head, and in the latter the fishing grounds were between Tiumpan Head and the Butt of Lewis. As usual, some crews were much more successful than others, the earnings ranging from £100 to £500 per boat, averaging about £270 for the season.

The early summer herring fishing was conducted by a much smaller fleet than was engaged during the first quarter of the year, stranger craft preferring to fish on the East Coast and at Shetland. The results, when compared with the preceding year's, show a decrease in quantity of 3325 crans, and in value of £13,375. This shortage in quantity was more than offset by the landings during the great summer and autumn fishings, which exhibit an increase on the catch of 1913 of 11,166 crans. The increase in value was, however, only £4560. Taking the year as a whole the records show an increase in weight of 49,700 cwt., but a decrease in value of £28,098 when compared with the preceding year's figures.

The gross earnings of the drifters for the year ranged from £600 to £2010, the average being about £950. One east coast drifter grossed £1310 at Stornoway, exclusive of the months of June and December, when she fished from other ports. One local motor boat earned £780 during the summer and autumn fishings, while another grossed £397 from May 23rd to August 19th. As a rule sail boats fish only in the summer season. The best boat grossed £493, while the least successful craft made only £40. The average price for the year was 17s. 4d. per cran, as against 24s. 1d. in 1913.

Mackerel were very plentiful, but there was little demand for them, and considerable quantities were consigned to the sea again. The catching

of mackerel is merely an incident in the herring fishing, there being no organised fishery.

Line fishing has been on the decline for some years, and the year under review exhibits a further shortage, due partly at least to the number of fishermen who have been called up in connection with the war.

The drying of cod and ling was not engaged in so extensively as formerly. Prices for fish treated in this way were the best for some years, averaging £25 and £32 per ton respectively.

Lobster fishing was prosecuted chiefly at the outside stations. The results from this source were not very satisfactory. Besides, there was less demand for lobsters than in normal years, owing to the class who mostly use them being at the front.

About 2500 women proceeded to the East Coast and Shetland in May and June, but their earnings were much less than in an ordinary average season.

There is little material change in the means of capture. One motor engine, which cost £650, was installed in a first-class sail boat, and has given satisfaction. Another small boat got a Kelvin motor put in, which cost £120, but this craft does little fishing. The former motor has two engines which work independently of each other, and has twin screws.

Owing to the difficulty of getting safe transport to Russia fewer barrels of herrings were cured pickled than would otherwise have been the case, but against this a much larger quantity was kippered than in former years, and good prices were obtained for the herrings so treated.

The number of naval reserve men belonging to the district serving in the fleet is 1903. The number of men who have joined the land forces is approximately between 1100 and 1200. There appears to have been no actual record kept here of the number of men who accepted the call to the latter arm of the fighting service, but they were drawn to a greater or less extent from nearly every trade and occupation in the district.

In addition to the above about 100 men left the district for Glasgow and Liverpool to fill vacancies on merchant ships created by reservists having been called up for naval duty. All expenses were paid and high wages given.

Generally speaking, the inhabitants of the district were seldom better off from a monetary point of view, as it is estimated that about £4000 from the men on service are coming to the island each week.

I regret to have to report that two men lost their lives in connection with the fisheries. Both fatalities occurred on the East Coast, one man being knocked overboard at sea, while the other was found drowned in Peterhead harbour.

W. M. WARES,
Fishery Officer.

FISHERY OFFICE,
STORNOWAY, 14th January 1915.

Barra District.

So far as this district is concerned the results of the fisheries for the year now ended have proved to be the worst on record. Compared with last year's figures, there is a shortage of 77,558 cwts. in quantity, and £59,009 in value. For this state of matters the unsuccessful herring fishing is mainly responsible, although no doubt the curtailment of the season consequent on the outbreak of hostilities also contributed.

In the Means of Capture returns there is very little change, except for

the addition of several second- and third-class boats. There are indications, however, that a few of the larger boats usually employed in herring fishing will not again be used for that purpose. These are boats owned by local merchants who have lost financially over the last two years' fishings. A promising feature during the early part of the year was the fitting of motors into three first-class sail boats, all the more noteworthy as the fishermen themselves are the sole owners of the boats. Hitherto, the fishermen of this district had shown but little interest in this method of propulsion, only one boat having had motor power installed previously. Unfortunately the enterprise of the fishermen has not been rewarded, as they experienced a very unsuccessful season.

A little was done at winter herring fishing, some drifters landing catches in Castlebay from the Minch grounds. The quality of the herrings was good, and curers on the ground bought readily at easy prices. A few of the local boats also fitted out, but owing to the demand becoming less keen, accompanied by a fall in prices, they soon gave up fishing. Altogether 1264 crans valued at £763 were landed, all the herrings being cured and mostly consigned to Petrograd.

The summer herring fishing commenced on the 13th May, when about 140 boats were prepared to engage in fishing. Fish were extremely scarce throughout the whole season, and only on two days was the catch considered anything like satisfactory. The quality of the herrings was poor at first, but improved somewhat as the season advanced. It was generally observed that better fish were caught on Stanton Bank and in Gunna Sound than on the other grounds frequented. Some drifters also tried the west side occasionally, and although only a few small shots were got, the quality was all that could be desired. The highest price paid for herrings during the season was 66s. per cran, while the average works out at 33s. per cran, as compared with 49s. in 1913. In consequence of the scarcity of herrings, the majority of the steam drifters left for East Coast ports about the first week of June. A few, again, with the experience of former years, continued to work in the hope that fish would become more plentiful. The most successful among the stranger vessels was a steam drifter with £620, while a motor boat had £420, and a sailer £320; taken in the same rotation the best fished last year had £1525, £728, and £715 respectively. The local fishermen fared very badly, the four motor boats only averaging £102, as against £540 last year; and sail boats £52, as compared with £101 in 1913. It will thus be seen that the fishermen of this district generally would have little over after meeting expenses, and in many cases a settlement on the wrong side. Three boats at the Loch Bracadale fishing are reported to have done well, the best earning £250 for five weeks' fishing.

Line fishing receives very little attention from the fishermen of this district. Only two boats took part in great-line fishing during the early spring, grossing about £65 between them. Several small lots of great-line fish were also landed during the spring months by Peterhead liners.

The shell fisheries rank next to herring fishing in importance in this district, and provide a livelihood for a considerable number of fishermen. Lobster fishing is prosecuted more or less throughout the whole year, the fishermen with the help of local merchants sending their catches to market themselves. Unfortunately at the time lobsters were most plentiful, prices were ridiculously low, with the result that the fishing was followed with less energy. Cockles were not so plentiful as in former years, but better prices were received from the English markets, where most of them are sent. The quantity dispatched this year was 2827 cwt. valued at £605, against 3813 cwt. valued at £639 in the previous year.

Altogether the value of shell-fish shows a decrease of £1594 as compared with that of the year 1913.

About 1200 tons of kelp were shipped to Glasgow in the course of the year. This means a sum of nearly £5000 coming to the district from this source alone.

There were no classes for the teaching of navigation held anywhere in the district.

In connection with the fisheries of the district there was one casualty, a young fisherman having lost his life off Canna in the month of June through being knocked overboard by the sail.

The loss in damage to boats and gear was not heavy, but in proportion the greatest sufferers were the lobster men fishing from the N.W. part of the district.

For the present, at anyrate, any distress among the fishing community must be attributed more to the unsuccessful herring fishing than to the war. During the winter months very few of the fishermen give fishing serious attention, so that the existing conditions are only what would prevail at any ordinary time. Nearly every winter considerable numbers of fishermen leave for Glasgow and elsewhere with the object of securing work. This year the number who have left the district is unprecedented. Every one has been able to get work ashore or on board merchant vessels. Therefore it may be assumed that those fishermen will not take up their ordinary calling until such time as herring fishing can be resumed under normal conditions. Fishermen remaining in the district consist mostly of the elderly class.

The effect of the war will perhaps be more keenly felt by the women who follow the herring fishing. Of about 400 fishworkers in the habit of going from this district to the English fishing, only 75 received engagements this year. At the summer herring fishing over 800 women belonging to these islands are employed, and their prospects of securing engagements next season seem remote, so that the loss from this source alone will be very considerable.

JAMES WOOD,
Fishery Officer.

FISHERY OFFICE,
CASTLEBAY, 4th January 1915.

Loch Broom District.

Fishing operations in this district were less productive during the year that has just closed than they have been, in the case of herrings and white fish, since 1903, and in the case of shell-fish since 1898. With the exception of eels and plaice, all kinds contributed towards the decline. The total catch compared with 1913 shows a decrease of 6908 cwts. in quantity, and £3147 in value, of which herrings accounted for 3613 cwts. and £2853, while shell-fish shows a falling off in value of £776. The shortage is even greater when compared with the average catch for the previous ten years, the decreases being 53,294 cwts., £10,682 and £1060 respectively. The shortage was attributable to various causes. Very few herrings visited the lochs, and the cod and saithe net fishing at Badachro in spring yielded a smaller catch, while fewer stranger boats visited the district for herring fishing from August onwards, owing to the dislocation caused by the outbreak of war.

The means of capture show a few changes. The boats added to the register were mostly of the third-class order, and while the number and

value of boats is greater by 9 and £47 respectively, there is a decrease of 6 tons in the total tonnage. One of the Gairloch skiffs had a motor engine of the "Kelvin" type installed which has given entire satisfaction, and another boat belonging to the same locality is also being fitted with a motor. The progress in this respect has hitherto been slow, but the fishermen are now becoming more alive to the advantages of auxiliary motor propulsion. There are slight increases in the number of lines and lobster creels on hand and a decrease in the number of nets, the total value of gear exhibiting a decrease of £141. There are 22 fewer fishermen returned, owing to the emigration of several young men to the colonies and a number of the older men ceasing to engage in fishing.

The outbreak of war between this country and Germany had a serious effect on the earnings of the fishermen and gutters and packers of the district. None of the former and few of the latter were engaged at the English fishing, where they all made splendid wages in 1913, and both hired hands and gutters and packers employed at Scottish fishing centres had to return to their homes early in August with their earnings very much short of what they were in 1913. Lobster fishing was also adversely affected. Returns in August, September, and October were very low, some of them being only 2d. per lobster, and in some sections fishing ceased altogether. Prices, however, improved in November, the agents of English merchants having resumed business, and towards the end of December this branch of the industry had resumed its normal aspect. For some years past a number of East Coast and Moray Firth crews have engaged in herring fishing in the lochs of this district during the last four months of the year, but none of these crews put in an appearance during the year under review owing to the war, and their absence was felt both in fishing and commercial circles in the district.

The herring fishing was most disappointing. At some creeks the small rowing boats had good earnings from the inshore grounds, but taken as a whole this fishing was again a failure. The principal ports of landing were Lochinver, Badachro, and Ullapool, and one-fourth of the total catch of 3786 crans was landed by stranger crews in January. At the first-named place the fishing was carried on in boats of under 18 feet keel, and while herrings were got during June to December, the best results were obtained in the early part of January. The total catch at this creek was 1530 crans, which realised an average price of 14s. 11d. per cran.

The summer herring fishing at Badachro was prosecuted by the local skiffs only, with meagre results, and nothing was done by them during the winter, but in January 780 crans were landed by steamers which could not dispose of their catches at Stornoway.

Only a few local skiffs operated from Ullapool, and, although herrings were landed during August, September, and October, only one good day's fishing was recorded. The total catch for the creek was 530 crans.

The size and quality of the winter herrings were good, but those of the summer and autumn only fair. Prices for January herrings were from 10s. to 20s. per cran, but the cessation of curing for the Continent during the later period left the business in the hands of those who supply the home market, and prices fluctuated from 5s. to 20s. per cran according to quality. The average price over all was 14s. 7d. per cran.

Little curing was done for America, and those cured for the Continent were all shipped by the end of March. Curers gave more attention to supplying the home market, and good business was done, but all over the district the moderate prices prevailing caused fishermen and others to do a little curing for their own and their friends' use.

The usual cod and saithe net fishing at Badachro was engaged in during

the spring by a fleet of 30 skiffs. Rough and unsettled weather was experienced, which affected the landings, and the total catch compared with last year shows a decrease of 16,400 cod and 3890 saithe. Prices were, however, good, and the total value was only £238 less than in 1913. The average prices realised were, for cod, 10d. each, and for saithe 4½d. each. Fishermen had a fair season, their earnings ranging from £30 to £86, with an average of about £62 per boat. There was no steamer provided for running to the railway terminus at Kyle, and little was done at freshing. Curing was briskly carried on by seven firms, but the season was an unprofitable one for most of the firms engaged.

The decline in line fishing still continues, the decrease of 1914 being 852 cwts. in quantity, and £160 in value. Local fishermen complain of the scarcity of fish, and fewer haddocks and codlings are certainly being landed year by year, but steam liners continue to fish in the lochs and off the coast of this district and land shots up to 60 scores of eels, roker and cod at Mallaig in February and March.

About 100 boats were occasionally employed at lobster fishing, and their earnings would range up to £80 per boat, though the average was much lower, being a little over £29 per boat. The crew of a lobster boat varies from 1 to 4, but there are generally 3 or 4 men in each boat. Very little was done at whelk gathering.

No herrings were exported direct from the district.

Unfortunately a Lochinchard fisherman was washed overboard and drowned while serving as a hired man on board a steam drifter at the East Coast fishing.

Very little damage was done to fishing gear.

The barometer at Ullapool got out of order, and was replaced by a new one from the Meteorological Office, London. The one at Badachro is in good working order.

The extension and improvement of the pier and slipway at Ullapool has now been completed.

JAMES MAIR,
Fishery Officer.

FISHERY OFFICE,
ULLAPOOL, 8th January 1915.

Loch Carron and Skye District.

The returns of fish landed in this district during 1914 show a decrease in quantity and value of 1857 cwts. and £440, as compared with the figures for 1913. The failure of the winter herring fishing was the principal cause of this decrease. Mackerel and hake are the only kinds that show an increase. Shell-fish returns declined to the extent of £987.

The Means of Capture returns show a reduction of 13 boats from last year. The number removed from the register was 34, and the number added 21. As all the boats struck off the register were of the smaller size, and hardly fit for sea, the catching power has not been impaired, boats and gear showing an increase in value of £1371. Nine motor boats were added to the fleet during the year, 8 having Kelvin engines installed, and 1 a Ferro. Only 1 was specially built for motor power, the other 8 being old boats in which engines were fitted. Motor power has been adopted for the first time at three creeks on the west side of Skye, and has proved so successful that a considerable increase in this type of boat may be looked for.

The quantity and value of fish caught by lines is practically the same as

last year. This branch of the fisheries is prosecuted by only a few crews in the district, and the bulk of the fish caught by them is disposed of for local consumption.

A very successful fishing, by means of fixed ground nets, was carried on by a number of motor and sail skiffs, belonging to Loch Carron and Applecross, from January to March. Hake and saithe were the principal kinds landed, and were very plentiful on the grounds between the islands of Raasay and Scalpa and the mainland. Good prices were obtained, and the earnings of the fishermen ranged from £100 to £230 per crew.

The winter herring fishing was practically a failure, no shoals of fish being present in any of the district lochs. The bulk of the catch was landed at Kyle and Uig by steam drifters fishing on the Stornoway grounds, and the season closed about the second week of March with a catch of 1810 crans valued at £1121, as compared with 3838 crans and £3457 for the previous year.

The summer herring fishing was commenced about the middle of June. A fair fleet of motor and sail boats operated from Uig, in Loch Snizort, but met with little success. Catches were light and the herrings were of poor quality. All the herrings landed were cured, but only a small proportion was sent to other districts for export, the greater part of the cure being disposed of for home consumption. The boats left at the end of July, but the few local craft continued fishing right on to the end of the year, and secured some fair takes during October and December.

During November and December a very heavy fishing was obtained in Loch Bracadale. The bulk of the fleet consisted of East Coast steam drifters, which landed most of their catches at Mallaig and Stornoway. A number of these vessels also landed catches at Kyle, where prices ranged from 20s. to 70s. per cran. A few of the local skiffs also operated in the loch, but owing to the stormy weather were unable to make the passage to Mallaig or Kyle, and disposed of their takes to buying steamers in the loch at from 15s. to 40s. per cran. The quality of the herrings was fair, spent fish making their appearance towards the close of the year.

The mackerel fishing was prosecuted from Kyle and Portree during September and October, the principal fishing grounds being round the islands of Raasay and Scalpa. The fishing was fairly successful, and the returns show a considerable increase in quantity and value. The average price per cran was 19s. 5d., as compared with 16s. 5d. last year. All the catch was dispatched to the English markets in a fresh state.

The motor boats belonging to the district were very successful during the year, their earnings ranging from £200 to £640, with an average of about £330, while sail boats of a similar size earned from £70 to £200, with an average of about £100.

The number of baskets branded during the year was 8253, an increase of 3118 as compared with the previous year.

There are no classes conducted in this district for the technical instruction of fishermen or others connected with the fishing industry.

Fortunately no lives were lost in connection with the fisheries of the district, and the damage to boats and gear was a little less than last year.

The chief effect of the war on the fisheries of the district has been the greatly increased landings of herrings by East Coast steam drifters at Kyle during the latter part of the year, the number of these vessels which operated on the West Coast being much larger than would otherwise have been the case. At the outbreak of war the local craft were preparing to start the mackerel fishing, and it was carried on successfully. Very little curing has been carried on since the war began owing to the keen demand for freshening purposes. Prices on the whole have been much higher for

all kinds of fish, the only exception being lobsters, which have declined in value owing to the stoppage of exports to the Continent. Permits are being issued to all the local boats taking part in the ground-net fishing, which has just begun, and also to a few who are prosecuting the herring fishing in Loch Bracadale, so that the number of boats fishing meantime in this district is quite up to the average at this season of the year.

GEORGE DOWNIE,
Fishery Officer.

FISHERY OFFICE,
KYLE, 11th January 1915.

Fort-William District.

For the year under review the aggregate results of the fisheries in Fort-William district show an increase in the quantity of fish landed of 36,365 cwts., and in value of £16,032 compared with the figures for 1913.

The value of shell-fish also shows an increase of £59.

The Means of Capture returns show a reduction of 18 boats, 23 being cancelled during the year as being unfit for fishing purposes, while only 7 were added to the register to replace those withdrawn. The number of motor boats is now 15, being an increase of only 1 boat for the year. There is little or no change in the extent of gear, or method of fishing. Owing to a number of fishermen giving up the sea on account of their age, and the younger generation seeking other employment, there is a decrease of 20 fishermen.

The winter herring fishing—a continuation from 1913—was carried on during January and February with fair success. The chief feature of the fishing was the high prices paid for fresh herrings. From the commencement of the season till the end of January, prices varied from 35s to 85s. per cran, while for the remainder of the season the average price was about 17s. per cran. The principal fishing stations were Mallaig and Oban. The Oban fleet operated off Skerryvore, Dhu Artach, and Coll, while the Mallaig fleet operated chiefly off Coll and Canna. At the latter port the fishing was greatly augmented by some heavy takes from the Stornoway fishing grounds in the North Minch. The season was a very stormy one, which tended to curtail landings. This fact, coupled with the partial failure of the Loch Bracadale fishing, accounted for the decrease in herrings landed compared with the catch of 1913. The season came to a close about the end of February with a total of 14,516 crans valued at £14,893.

Line fishing was carried on simultaneously with the herring fishing during January, February, and March. The results of this branch of the fisheries, from a fisherman's point of view, were the most remunerative on record, especially at Mallaig. A number of boats made substantial earnings, steam liners making from £560 to £785, while the earnings of motor boats reached as high as £400. The principal feature of the white fishing was the extraordinarily fine shots of hake landed. This valuable fish was found in considerable quantities in a patch of deep water off South Rona. Prices ranged as high as £7, 12s. per score. Only large boats were able to participate in this fishing with any degree of regularity, the smaller craft being often prevented owing to stormy weather.

The early summer herring fishing opened at Mallaig and Oban about the first week of May, and closed about the middle of June. The fishing grounds operated on were off Coll, Canna, Skerryvore, and Dhu Artach.

Herrings were found rather scarce on these grounds during the summer months, and there is little of interest to record in connection with this period of the fishing. The fleet engaged was usually small. Herring fishing was carried on intermittently, and with varying success until near the close of the year. It was not until about the end of November that the fishermen who persevered in the West Coast fishing were rewarded for their patience and labour. About that date a dense shoal of herrings was located in Loch Bracadale. Soon a fair fleet of East Coast boats was at work, with their headquarters at Mallaig, but owing to the closing of the West Coast fishing by the Naval Authorities to other than local boats, their success was short-lived. East Coast crews were forced to cease work, and operations came to an abrupt ending about the last week of December, the situation remaining unchanged at the end of the year.

A number of stranger crews arrived on the West Coast, only to find that owing to Admiralty restrictions they could not prosecute their calling. Before fishing operations were stopped, there was an abundance of herrings in the loch, and the prices paid were extremely high, ranging from 40s. to as high as 80s. per cran. The few crews that first located the herrings reaped a fine harvest in a short time. Special mention may be made of one boat, which grossed £1100 for 12 weeks' work; another boat earned £750 for 3 weeks or 5 shots; while a third grossed £400 for one day's work. The method of fishing in most of the lochs is for the crews to anchor their nets, and run to port with their catches, while their nets are left in the water.

The herrings were of fair quality, but owing to the high prices ruling, curers were often unable to purchase for pickling purposes, and the bulk of the catch was sent to the English markets in a fresh or sprinkled state.

The shell-fish section of the industry was actively engaged in. Lobster fishing, the principal branch, resulted in an increase in number of 5363 lobsters, but a decrease in value of £5. The quantity and value of whelks also show a slight increase.

There are no classes for the technical instruction of fishermen or other persons connected with the fishing industry conducted in this district.

The war has had little effect on the fishing industry in Fort-William district. The quantity of fish cured for export to the Continent is small, the bulk of the catch being sent to the English markets in a fresh or kippered state. Prices of herrings and other fish remained normal until about the end of November, when owing to scarcity of fish, chiefly caused by restricted fishing, the price of all kinds ruled high, which was certainly an advantage to the fishermen.

Prospects for the future are favourable. It is expected that restricted areas may be reopened on the West Coast, and no doubt fishermen will receive remunerative prices for all kinds of fish, while fish buyers will also receive good returns owing to the short supplies at other ports. The price of lobsters does not compare favourably with the previous year, chiefly owing to the fact that the German markets, where a considerable number of the lobsters are sent, were closed.

It is regrettable that one of the district motor boats, with a crew of three men, was lost off the Point of Sleat in a gale.

The fishery barometer at Mallaig is in good order.

JAMES YOUNG,
Fishery Officer.

FISHERY OFFICE,
OBAN, 18th January 1915.

Campbeltown District.

With regard to the fishing industry of this district the year just closed has been a most disappointing one to a great many people. This was entirely due to the extremely poor success which attended the prosecution of the herring fishing in Kilbrannan Sound, and adjacent waters, as the year's catch of white fish, exclusive of herrings and mackerel, shows a substantial increase on that of 1913.

A comparison of the total catch by nets and lines for the year, with the corresponding quantity for the previous year, shows a falling off to the extent of 71,074 cwts. As the catch of round and flat fish shows an increase of 2350 cwts., the decrease in the quantity of herrings and mackerel landed is consequently 73,424 cwts. For the district the aggregate value of the year's landings of all fish is returned at £24,978—a decrease of £29,364 from the value of the catch of the former year.

The returns of shell-fish landed during the year show that considerably more success was met with in the prosecution of this branch of the industry than in the preceding year. A decrease in the catch of lobsters is shown at a few of the creeks, but the total catch for the district shows a fairly large increase. Unfortunately a poor demand for lobsters prevailed during a period of the year, and prices consequently fell to a very low figure, with the result that, notwithstanding the large increase in the catch, the total value only slightly exceeds that for 1913. For all kinds of shell-fish landed in the district the total values for 1914 and 1913, respectively, are £2688 and £2444.

In the Means of Capture the most outstanding feature is the increase in the number of auxiliary motor boats. During the past year 15 were added to the fleet, thus raising the number of motor propelled craft belonging to the district to 94 vessels. Of those added since 1913 three were built during the year, three were purchased from other districts, two were boats previously fitted with motors, but not registered as fishing boats, and the remaining seven were boats which, formerly, were propelled by sails only. With the exception of one engine of American manufacture, all the additional motors are of the Kelvin type.

The prosecution of the herring fishing, as already indicated, was attended with very disappointing results, particularly during the latter half of the year. The first landings for the year were made on 7th January, and from that date to the end of December operations were carried on as weather conditions, &c., permitted. Throughout the first three months there was no cause for complaint, the season's catch at the end of March being greater than that for the corresponding period of 1913, which was an exceptionally prosperous year. During the succeeding two months, however, very indifferent success was experienced, with the result that the increase shown for the first quarter of the year was displaced by a considerable decrease by the end of May. A gratifying improvement took place in June, which yielded the best month's fishing of the year, while a fair measure of success was met with in July, but throughout the remaining period of the year, especially the last four months, the landings were extremely poor. Some idea of the extent of the decline may be realised when it is stated that the catch of herrings for the first six months—which, on an average, were lightly fished—amounted to 36,068 cwts., while the latter half of the year yielded only 13,761 cwts. Not since 1906, during which only 38,745 cwts. were landed, has the total catch for any year been so small, and, when it is considered that, within recent years, the catching power of the herring fleet has increased considerably, the results are obviously even more disappointing than the returns indicate.

No doubt the departure of over a hundred fishermen from Campbeltown and Carradale during the period subsequent to the outbreak of war, to serve as naval reservists, had an adverse effect on the catch for the closing months of the year, as a fairly large number of boats had, in consequence, to be laid up for want of crews. Herrings were evidently so scarce, however, that it is improbable that the catch would have been materially increased by the continued working of these boats.

With the exception of a very small quantity the herrings caught in the Firth of Clyde waters of the district were secured by seine nets. Towards the end of the year a few Islay fishermen obtained small catches by drift nets in Lochindaal.

The quality of the herrings landed during the respective seasons of the year was quite up to the average standard of previous years, but, unfortunately, the bulk of the year's catch was got during the months in which the quality is always of an inferior nature. Notwithstanding this, however, prices ruled exceptionally high throughout the whole year—especially when supplies were light—and the average value per cran is probably a record one for this district, amounting to 30s. 6d., as compared with 29s. 9d. in 1913.

Owing to prices being so high only a very small proportion of the catch was cured for exportation, the number of barrels filled being a little over 300, all of which were shipped coastwise to Glasgow.

Great-line fishing was prosecuted more extensively from Campbeltown during the spring months of the year than it has been for several years, as, apart from the fact that a larger fleet than usual of local boats was engaged, four motor boats belonging to Montrose district arrived early in the spring at Campbeltown, where they remained for several weeks carrying on great-line operations. A good deal of success was met with, particularly by the stranger boats, and very satisfactory earnings were made.

From about the middle of June to the end of July three crews of fishermen belonging to Portnahaven were engaged in fishing for saithe at the Mull of Kintyre. Their efforts were attended with moderate success, and after curing and drying their catches they sailed direct to Ballycastle, at which port all their fish were disposed of at 12s. per cwt., the gross earnings per boat ranging from £48 to £67. At Gigha the cod fishing continues to decline steadily, and consequently a decrease in the quantity of cod cured has to be recorded yearly. Only 27 cwts. were dried during the past year; a decrease of 52 cwts. from the previous year's quantity. Small-line fishing was occasionally carried on at Campbeltown and Bowmore, but the results were not encouraging.

The boat-building trade in the district was slack, only one large herring skiff having been built early in the year.

Unfortunately a local fisherman was drowned at Ayr while engaged at the herring fishing. There was no serious damage done to boats or fishing gear during the year.

Apart from the laying up of about 15 boats, owing to a large number of the fishermen having left to serve in the navy, and a decrease in employment for net-makers, the fishing industry of this district has not been affected to any serious extent by the war. With regard to the prospects for the future, there does not, at present, appear to be any cause for anxiety, as, subject to certain special orders concerning the prosecution of the fishing, operations may be carried on by all the local fishermen throughout the district.

JOHN SIM,
Fishery Officer.

FISHERY OFFICE,
CAMPBELTOWN, 7th January 1915.

Inveraray District.

Following a series of unprofitable years, it is disappointing to have again to record the non-success of the fisheries of Inveraray district during the year just closed. This is essentially a herring fishery district, and as this branch of the industry was a complete failure, the results must be keenly felt by all connected with it, especially as only moderate results were met with by local fishermen in their operations in other districts.

The aggregate catch was 9818 cwts. valued at £3418, a decrease of 4304 cwts. and £1681 respectively, when compared with the previous year's figures.

Notwithstanding the depressed state of the fishing industry, the number of motor boats continues to increase, and during the year 8 were added to the fleet. Three of these were small boats intended for lobster fishing, the others being the ordinary Lochfyne skiff. The tendency in this district with fishermen already in possession of motors is to acquire larger and more powerful engines, and 5 motors of 10/12 to 18/22 h.p. displaced others of 7/9 and 8/10 h.p. Only the most successful fishermen can, however, afford this exchange.

The length of lines in use showed a shrinkage, but there was a slight increase in the area of netting, owing to the fact that, for a short period, a greater number of crews was engaged in drift-net fishing in other districts.

A new method of setting creels was generally adopted by lobster fishermen. All creels are now fastened to a back-rope at intervals of 8 fathoms by stoppers $1\frac{1}{2}$ fathoms long. Each creel thus acts as an anchor to the others, while the back-rope usually falls across the creels and gives additional security. Only two headlines or leaders are used, one at each end of the fleet of creels. Previously each creel had an independent leader which, especially in strong currents, caught passing wreckage and seaweed, and, being overweighted, carried the buoys under water and dragged the creels from their original position.

The loss, which from this cause was sometimes considerable, will be obviated by the system now introduced.

With the extremely disappointing results in 1913, it was thought that the herring fishing had reached its lowest ebb, but it was left for the year under review to record the poorest catch landed in the district within the memory of the oldest fisherman. It is even doubtful if, in the annals of the Lochfyne herring fishery, operations have ever had such meagre results. To more clearly demonstrate the complete failure, it is only necessary to state that the year's catch represented only an average night's fishing during the prosperous seasons some thirty years ago.

The continued failure of this most important branch of the industry is having its effect.

Already the creeks in Upper Lochfyne have been practically depleted of their fishing population, and this state of matters is slowly but surely extending to the more populous creeks in lower Lochfyne. Since 1905 the number of fishermen in Tarbert has decreased by 30 per cent., in Ardrishaig by 33 per cent., and over the whole district by 50 per cent. This movement can only be checked by a speedy improvement in the fishing.

At no time was there any great quantity of herrings in the loch, and the few crews that put to sea early in March confined their operations to Kilbrannan Sound. In May, with all the boats at work, matters had not improved, and only occasionally throughout the whole season had Lochfyne its regular fleet. Only on two occasions did the weekly catch exceed

100 crans, and during those two weeks almost one-half of the total landings were accounted for.

With the exception of a few crans caught near Laggan, all the herrings were secured on the grounds in the vicinity of Skipness. So that for the first time for a considerable number of years no herrings were located north of Tarbert.

In all, 919 crans valued at £1937 were landed, included in which were 26 crans valued at £32 taken from the waters on the western seaboard of the district. The quality was very good and high prices were realised, the average price being 42s. 2d. per cran.

As a result of the shortage in the catch, curing operations, which for years have been conducted on a very limited scale, were entirely suspended, no herrings being either kippered or cured gutted.

The quantity of mackerel landed was the largest for many years and for the first time exceeded that of herrings. The fishing was carried on simultaneously with herring fishing, and the method of capture was by ordinary seine and drift nets.

Mackerel first made their appearance in local waters during the month of June, and the shoals appeared to increase in density until August when all parts of the loch, and especially the lower reaches, were teeming with fish.

During the latter period large catches were secured, and considerable difficulty was often experienced in finding a sale for the abnormally large supply. For this reason the fishing was prosecuted much less vigorously than it might have been, otherwise the landings would have been considerably augmented. At no time is there any great demand for this class of fish in the district, and, owing to the low prices paid, and the fact that the capture of mackerel by ordinary herring nets causes considerable damage to gear, the monetary returns are usually unprofitable.

The quality throughout the season was poor, and prices varied from 1s. to 8s., with an average price of 3s. 5d. per cwt. The whole catch was dispatched to the market in a fresh state.

Line fishing was carried on during the first four months of the year, but operations were considerably interrupted by stormy weather, and the landings suffered in consequence.

The catch consisted almost exclusively of codlings, which were sold for local consumption at prices varying from 15s. to 20s. per cwt.

The same factor had an adverse effect on cod-net fishing, which is prosecuted during the same period. Only a few crews engage in this branch, however, and the catch did not exceed 200 cwt.

The combined results by lines and cod-nets, neither of which are of much importance, show a decrease of 24 per cent. in quantity and 19 per cent. in value when compared with the figures for 1913.

Oyster culture is now receiving little attention in this district, and the annual output is diminishing.

The total number taken from the West Loch, Tarbert, and Loch Sween beds during the year was 8000, of which the former contributed 80 per cent.

Lobster fishing was carried on regularly, with improved results, until war broke out. Immediately war was declared, however, the demand for lobsters fell off, with the result that subsequent operations were irregularly conducted by a few crews only.

Towards the end of August, the markets were in such a depressed condition that, in some cases, lobsters realised an average of only 3d. per fish after expenses had been met.

The total catch was practically the same as in the preceding year, but the value was less by 16 per cent.

For the first time in its history, so far as this district is concerned, lobster fishing was carried on by motor boats. Unfortunately, owing to the dislocation caused by the war, their advantage over sailing craft could not be thoroughly tested, but there were sufficient signs to show their superiority as a means of capture.

Employment at boat-building was similar to that in 1913 and was confined to a few months, builders being practically idle during the remainder of the year. Two motor boats—one at Ardrishaig, and the other at Tarbert—were launched early in summer, while another of a much smaller size was completed at Luig towards the end of the year. The outlook for 1915 is very discouraging.

Fortunately no lives were lost in connection with the district fisheries, while the loss of and damage to fishing gear were of little moment when the capital involved is taken into consideration.

No classes for the technical instruction of fishermen or others connected with the industry were held in this district during the year.

Apart from the depressed state of the lobster markets, it cannot be said that the war had any effect on the fishing industry in this district during the year just closed as, the fishing grounds being remote from mine fields and all areas where hostilities were likely to be carried on, operations were conducted under normal conditions. So far as one can judge, future prospects will in no way be influenced by the war. Unlike east coast stations, practically no curing is carried on in this district, so that the closing of the continental markets will not be felt, while nearly all white fish landed are sold for local use. Although 50 fishermen have joined the army and navy, the fleet will not be appreciably reduced, especially if the fishing proves productive.

The barometer at Tarbert is in good order and a record from it was taken daily.

ROBERT SPINK,
Fishery Officer.

FISHERY OFFICE,
TARBERT, 6th January 1915.

Rothsay District.

The aggregate results of the fisheries of Rothsay district during the year under review were extremely disappointing, the catch (shell-fish excluded) amounting to 10,851 cwts. valued at £5024, compared with 18,571 cwts. and £8103 respectively in 1913.

A slight improvement in line and cod-net fishing was more than counterbalanced by decreased returns from herring fishing, the shrinkage in this branch of the industry being 8438 cwts. in quantity and £3625 in value.

The downward tendency in the Means of Capture was again evident, and with a continuance of this retrograde movement, it is not unlikely that before many years have elapsed, few fishermen will be left in the district.

One new motor boat fitted with a 15 h.p. Kelvin engine was added to the fleet, but 2 were sold out of the district, and 1 ceased to be used for fishing purposes. A number of sail boats was also struck off the register, the net decrease at the close of the year being 11.

In sympathy with the general decline, there was also a further shrinkage in the area of netting and the length of lines in use.

A few crews fitted out for the winter herring fishing, but, although

the various fishing grounds, chiefly those in the Kyles of Bute, were tried, the results were most disappointing, the catch for three months being only 100 crans.

The quality was, as a rule, poor, and most of the herrings were sold for bait.

The summer herring fishing opened early in June, when a few local crews put to sea, but only small isolated shoals were met with, and the landings for the month did not exceed 60 crans. With the advent of July, more satisfactory results were obtained, and the quality of the herrings was all that could be desired. The improvement was, however, only temporary, for light catches were thereafter landed until the end of August, when the fishing may be said to have closed.

The season was thus of much shorter duration than usual, and fewer stranger crews fished in the district waters.

The quality was usually very good, and prices ruled high, the average price being 38s. 9d. per cran, compared with 34s. 8d. per cran in 1913.

Lamlash was again credited with the bulk of the landings, its contribution being 957 crans, or 77 per cent. of the season's catch.

It is evident that fishermen belonging to the district are annually taking a less active part in its fisheries, and this condition of affairs will, no doubt, be further accentuated by the failure of the herring fishing, following on the comparatively poor results in 1913.

No herrings were cured gutted during the year, as, with the high prices ruling, curers could not compete with fresh buyers.

Two hundred and fifty crans were kippered, a reduction of fully 150 crans when compared with the figures for the preceding year.

Practically all the herrings thus treated were disposed of locally or in the surrounding district at an average price of about 5s. per box, this being equivalent to £4 per cran.

The quantity of mackerel landed, although less than in the previous year, was equal to the average catch of the past few years. The fishing was carried on conjointly with the herring fishing, and no boats were specially fitted out for its prosecution.

The most productive grounds were those in the vicinity of Kilchattan and on the east of Arran, but fair results were also met with in Lochs Long and Goil.

The quality, generally, was mixed, and there was little demand for the fish, all of which were dispatched to the markets in a fresh state.

The average price per cwt. was 3s., compared with 2s. 8d. per cwt. in 1913.

Small-line fishing received little attention, and the most prominent feature in connection with this branch of the industry was the continued scarcity of haddocks and whittings on the grounds where they had previously been so plentiful.

The district crews engaged in great-line fishing were joined by 4 motor boats from the East Coast, and, while the former fished chiefly in the Kyles of Bute, the latter frequented the grounds S.E. of Bute and in Gareloch, with more remunerative results.

The catch consisted principally of eels and skate, nearly all of which were consigned to the English markets. All cod and ling were disposed of locally.

The average prices for eels and skate were 10s. and 5s. per cwt. respectively, and for cod and ling about 12s. per cwt.

The shell-fish fisheries of the district are unimportant, and fully 90 per cent. of the value derived from them was from the sale of mussels and unclassified kinds. The total value of all shell-fish was £495, a slight decrease on the previous year's figures.

The boat-builders, who mainly confine their operations to the construction of fishing craft, were fairly well employed, but, with one exception, all boats built were for owners residing outside the limits of the district. As all Clyde districts shared in the general decline in the fisheries during the year just closed, the probability of many orders being placed in 1915 is very remote.

No lives were lost in connection with the district fisheries, and the loss of, and damage to, fishing gear was of little importance.

No classes were held for the technical instruction of fishermen or others connected with the industry.

It cannot be said that the outbreak of war affected the fisheries of this district, nor are future prospects likely to be influenced in any way by it. Operations were carried on without interruption, and the usual markets for the catch were always open.

The barometers in the district are in good order and are regularly attended to.

ROBERT SPINK,
Fishery Officer.

FISHERY OFFICE,
TARBERT, 7th January 1915.

Greenock District.

Compared with the figures for the preceding year, the value of all fish landed in this district during 1914 shows a falling off to the extent of £4762.

This decrease, and more, was attributable to the poor results of the herring fishing, as the returns of mackerel, white fish, and shell-fish all had an upward tendency.

In the Means of Capture the number of motor boats remained the same as in the previous year, but there was a drop of 14 in the fleet of sail boats, which brought about a corresponding shrinkage in the extent and value of fishing gear.

As stated above, the results of the herring fishing in this district were most disappointing, and the same may be said in regard to the whole of the Clyde area.

On the last day of February a steam drifter arrived at Glasgow from the west coast of Ireland with a shot of 90 crans of herrings, but, as the quality was very inferior, the price realised was only 6s. per cran.

During the first three weeks of August a shoal of herrings of fairly good quality was located in the vicinity of Portincross, and fair catches were obtained by the fleet operating on those grounds. Apart from that, however, only light, irregular supplies were landed in this district.

The total catch for the twelve months amounted to 1439 crans valued at £2407, which is the smallest recorded since 1904.

The average for the ten preceding years (1904-13) was 5440 crans and £6233. The bulk of the catch was sent to Glasgow market, where it was disposed of to local buyers for freshing, curing, and kippering purposes.

The landings of mackerel in the district exceeded those of the preceding year by 565 cwts. in quantity and £192 in value. These were mostly caught by boats engaged in the herring fishing in the neighbourhood of Skipness, and landed at Fairlie, whence they were chiefly railed to Glasgow, although, subsequently, a considerable portion was consigned to English markets. Prices varied according to supply and demand, the average for

the season being about 4s. per cwt., as against 3s. 3d. in the preceding year.

Only three steam liners landed their takes of fish at Glasgow, which in the aggregate amounted to 269 cwts. and £259, a decrease of 666 cwts. and £609 from the figures for 1913.

The results of line fishing in Clyde waters were very similar to those of the preceding year.

There was, however, a noticeable improvement in the quantity and value of flounders and plaice caught by means of flounder nets—which mode of fishing is permissible under the Board's bye-law, No. 26, during the months of January and September to December inclusive.

During the latter period a number of boats from the surrounding districts were engaged in the waters between Greenock and the Gareloch, and their efforts were rewarded with a fair measure of success. But for the unremunerative results of the herring fishing at that season of the year, it is not likely that the fishermen would have taken the same advantage of the privilege granted by the bye-law, as under more auspicious conditions they would have preferred to prosecute the herring rather than the flounder fishing.

The steam trawlers registered at Glasgow fished from Granton and Aberdeen, as the owners evidently consider it more profitable to keep their vessels employed at East Coast rather than West Coast ports.

Only two small shots of trawled fish were landed at Glasgow by English trawlers.

The demand for mussels, during the latter part of the year especially, had the effect of raising the output from the Clyde beds to nearly three times that of the previous year.

The number of lobsters and the quantity of unclassified shell-fish landed remained stationary.

Owing to the irregular supplies of herrings, curing operations were intermittently carried on during the course of the year. The total quantity cured gutted by the district curers was considerably less than in recent years. The supply of cured "Lochfyne" herrings was not equal to the demand of this class of fish, and, consequently, buyers had to meet their requirements with herrings cured on other parts of the coast.

Although not to the same extent as curing, the kippering trade was also affected by the shortage in the local catch of herrings. This was, however, largely counterbalanced by supplies of herrings, suitable for kippering purposes, received from various parts of the Scottish, English, and Irish coasts.

The exportation of cured herrings was carried on from Glasgow throughout the year, and the quantity shipped to America was greater than in any previous year. About two-thirds of the shipments came from the East Coast and Orkney and Shetland, the remainder being from West Coast stations.

In addition to the Scottish cured herrings (Appendix E, No. 2), there were over 8000 barrels of Irish herrings shipped at Glasgow for America.

There was a decrease in the quantity of cured cod, etc., exported *via* Glasgow to Ireland and Spain, and the same applies to the shipments of preserved fish to America and Australia.

A healthy business was carried on in the disposal of nearly all kinds of fish in Glasgow fish-market. Supplies came chiefly from Granton and Aberdeen, but considerable quantities were also received from various parts of Scotland, England, and Ireland. The aggregate number of packages was not so great as in the preceding year, which was chiefly due to the decrease in the quantity of herrings passing through the market, and also to the restrictions on trawling operations on the East Coast.

Alterations are meantime being made on the market which, when completed, will give more accommodation for the conduct of business.

Four motor fishing boats were built in the yards in this district for owners residing in the districts of Ballantrae and Lochcarron and Skye.

Barrel making was carried on in the Glasgow cooperages, but the number constructed was less than in 1913.

Fortunately no lives were lost in connection with the fisheries of the district, and the amount of damage to fishing gear was merely nominal.

There were no technical classes for the instruction of fishermen conducted in this district during the year.

Unlike many other parts of the coast, it could scarcely be said that the present war was the cause of interrupting fishing operations in this district. Fishermen continued to prosecute their calling during the latter part of the year on practically the same lines as before war was declared.

Owing to the stoppage of the herring fishing on the East Coast, which resulted in many of the fishermen resorting to line fishing, a greater demand for mussels for bait was created, hence the increase in the output from the beds situated in the Clyde.

The restrictions placed on the export of herrings to the Continental markets had the effect of diverting certain quantities of those originally intended for the Continent to America, which partly accounts for the increase in the shipment *via* Glasgow.

Unless it is found expedient to adopt more stringent measures than hitherto, it would not appear that the future prospect of the fisheries of this district will be materially affected by the conditions brought about by the war.

WM. NISBET,
Fishery Officer.

FISHERY OFFICE,
GLASGOW, 12th January 1915.

Ballantrae District.

A retrospect of the past year in so far as the fisheries of this district are concerned reveals the fact that it was very unproductive in quantity, with relatively high values ruling. The quantity landed shows a falling off to the extent of nearly 30,000 cwts. and the value of £12,000, when compared with the moderate results of the previous year—figures which indicate a very serious reduction in the earnings of district fishermen. This regrettable result is almost entirely due to the failure of the local herring fishing during the summer and winter months.

Although the total number of boats returned shows an increase of only one, the value shows an increase of £5412, this change being brought about by the acquisition of larger boats fitted with motors in place of obsolete sailing craft. During the year under review no less than 14 motor boats were added to the register, 11 of these were new craft, ranging up to £310 in value, while 3 existing boats had motors installed. The engines installed were of the Kelvin, Gleniffer, and Barcar type. Thirty-one new registrations were effected during the year, and numerous changes of ownership recorded. On the Ayrshire coast the landings by sail boats are now insignificant.

As heretofore the winter herring fishing was prosecuted from Ayr and Stranraer with the usual vigour by crews gathered from most of the Clyde area. Unfortunately results were not at all commensurate with the fleet engaged. At the former port stormy weather was largely

responsible for reduced landings. For the two months January and February the catch shows a reduction of 20,065 cwts. in quantity and £6599 in value, when compared with the same period of 1913. February was again the most productive month. In some measure the higher value would compensate fishermen, as it is observable that, although the landings were roughly only one-third, the value was almost one-half that of the previous year. During the summer months, herring fishing is followed by district boats, in various other sections of the Clyde area, consequently their landings are made in other districts. The past season, however, as already indicated, was extremely disappointing in results generally. During July and August the waters off the Ayrshire coast were teeming with mackerel, fair quantities of which were landed, but the value for these fell to such a low level that crews deliberately refrained from catching them. Their presence in such quantity was considered a bad augury for successful herring fishing. In June a few Girvan crews went to the Isle of Man to prosecute the herring fishing, but there also disappointment was experienced.

Simultaneously with the winter herring fishing, 4 steam liners operated from Stranraer, 3 with great-lines, and 1 with cod-nets and lures. The 3 working lines had a most successful season, earning over £800 each, perhaps a record for the port, and for a winter voyage of this nature. The crew working cod-nets, however, was not so successful. Cod-net and line fishing from Girvan, Dunure, Maidens, and Ballantrae, show similar results to those of 1913, but this fishing is only favoured when herrings are scarce.

Small-line fishing chiefly carried on from Dunure and Maidens gave improved results. Particularly toward the close of the year some of the small craft working in Culzean Bay were very successful and made good earnings—whitings being specially abundant for a time. This must have proved a boon to the older fishermen, as being in sheltered waters they were able to fish sometimes when all other methods were suspended. In common with all kinds prices ruled high.

The flounder-net fishing opened in September, but fish were very scarce, and boats were frequently out for hours for only a stone or so of fish. Subsequently bad weather prevailed, and several crews made for sheltered waters in the upper reaches of the Clyde, where better results were obtained.

During the year an English steam trawler was acquired by an Ayr owner and registered at that port. This vessel operated from Ayr with very moderate success, from April to November, when the vessel was taken over by the Admiralty. Two East Coast steam trawlers worked out of Stranraer during September and October, with fair results. Owing to this, landings of trawl fish show a decided increase over the previous year.

The yield from the Loch Ryan oyster beds shows a reduction of nearly one-half from last year's output. The largest quantities were taken in January, February, and March respectively—the figure for the first-named month being 122,000, while only 12,900 were returned for June.

The shell fisheries of the district, apart from oysters, show no great change, a slight reduction in lobsters and crabs being offset by an improvement in unclassified kinds. Shrimp fishing from Annan remains about normal in quantity, with an improved value. Mussels did not maintain the improved production recorded last year.

No classes for technical instruction were conducted during the year.

The European war which broke out in August had no appreciable immediate effect on the fishing industry of this district. So far as can be ascertained the numbers of fishermen who were called up for naval

and military service, and who have since volunteered for the services, are 40 and 5 respectively. All these men were fishermen.

Girvan sent the largest contingent, viz. 23 men, most of whom were naval reservists. This shortage eventually caused the laying up of 2 motor boats at Girvan, while other crews were completed by boys, and men not generally recognised as fishermen. Except for this, the fisheries continue to be carried on as heretofore.

JOHN GLEN,
Fishery Officer.

FISHERY OFFICE,
GIRVAN, 10th January 1915.

APPENDIX M.

HARBOUR IMPROVEMENT SCHEMES.

REPORT BY MR. R. GORDON NICOL, M.INST.C.E.

I have the honour to submit, for the information of the Board, the following report on the Harbour Improvement Schemes which are being carried out under the supervision of the Board, and were in progress during the year ended 31st December 1914.

The following table gives a list of these harbours, along with the estimated cost of the Schemes and the assistance in grants and loans that is to be provided from funds at the disposal of the Development Commissioners and the Board.

Name of Harbour.	Estimated Cost of Scheme.	Assistance to be Provided.		
		Free Grants.	Loans.	Total.
Berwick	£11,000	£4,000	£7,000	£11,000
Eyemouth	4,200	1,200	2,500	3,700
St. Andrews	1,710	1,500	...	1,500
Stonehaven	13,500	6,500	7,000	13,500
Fraserburgh	40,000	20,000	20,000	40,000
Gardenstown	9,500	4,000	4,000	8,000
Macduff	26,488	12,000	12,000	24,000
Banff	4,000	3,000	...	3,000
Whitehills	3,000	2,250	...	2,250
Cullen	6,037	2,800	2,300	5,100
Portknockie	8,000	3,200	2,800	6,000
Findochty	6,700	2,000	1,500	3,500
Buckie	35,000	10,000	25,000	35,000
Lossiemouth	15,034	3,000	10,000	13,000
Nairn	18,000	7,000	...	7,000
Wick	15,000	...	15,000	15,000
Whitehall (Stronsay)	20,500	10,000	...	10,000
Lerwick	17,000	7,500	...	7,500
Total	£254,669	£99,950	£109,100	£209,050

Berwick Harbour.

This Improvement Scheme is to provide accommodation for fishing vessels at the south side of the River Tweed, and consists of a timber wharf 400 feet in length, with berths alongside having a depth of 5 feet below low water of ordinary spring tides. The timber wharf and the gravel embankment underneath the wharf are almost completed, but the large space between the embankment and the shore may take a few years to fill up. After the wharf was partly constructed it was considered necessary to secure it against forward movement by tying it back with iron tie rods to large anchor blocks of concrete placed 40 feet behind the wharf. This additional work, which is hardly yet completed, was estimated to cost £515. The contract price for the original scheme is £8782, and payments amounting to £7144 have been made by the Board to the Trustees on account of the Development Fund grant.

Egremouth Harbour.

This scheme is for the improvement of the harbour by widening and deepening the navigation channel where it bends round into the harbour basin. The channel when enlarged will have a width of 150 feet with a depth of 2 feet below low water of ordinary spring tides, the material to be excavated being chiefly rock.

The scheme was estimated to cost £4200, towards which a free grant of £1200 and an interest bearing loan of £2500 are to be provided from the Development Fund.

The engineer for the scheme is Mr. A. W. Lewis, Westminster, and at present tenders are being invited for the work.

St. Andrews Harbour.

Progress on this Improvement Scheme from the commencement has been very slow, and the work is still under construction. In August the contractors became bankrupt, and since then the Harbour Trustees have carried on the works departmentally under the superintendence of the former Inspector of Works. The side walls of the new gateway have been completed, and the cofferdam for the eastern half of the gate cill is in course of erection. It was proposed at first to repair and use the old sluice gates in the new gateway, but after removal and further examination this was considered inadvisable, and tenders are now being invited for the supply of new gates.

The payments made to the Trustees by the Board on account of the scheme amount to £744 12s. 8d., the maximum sum promised being £1500.

Stonehaven Harbour.

This scheme is not yet completed, the contractors being presently employed in removing the reinforced concrete cofferdam within which the rock excavation was carried out and the Old North Pier repaired and strengthened. They are also at present employed repairing defective concrete work and laying a new concrete deck on the pier.

No payments to the Trustees have been made this year from the Development Fund.

Fraserburgh Harbour.

Work on this large scheme was pushed rapidly forward during the early part of the year so that the new harbour basin might be ready for the herring fishing season. This was accomplished, and on 27th July the Faithlie Harbour was opened by Lady Saltoun.

Payment of the free grant of £20,000 has been made to the Trustees from the Development Fund, and they have obtained a new Provisional Order to enable them to secure the loan of £20,000 to be provided from the Development Fund.

Unfortunately, during the gales of October, the storm gates, which are used to close the entrance to the new harbour in stormy weather, were seriously damaged, and had to be removed to the Pontoon Dock for examination and repair.

Gardenstown Harbour.

Progress on the contract for this scheme is at present arrested on account of defective work, and the matters in dispute between the Trustees and the contractors have been referred to Mr. B. Hall Blyth for his decision,

as the arbiter named in the contract. Meantime, as the contractors refused to rectify the defective work, the Trustees have taken the work out of the contractors' hands, and are carrying it out departmentally under the supervision of a Superintendent of Works with the plant and materials on the ground. Operations were commenced on the East Pier extension, and about one half of this work is completed.

Payment of an instalment of £1500 has been made to the Trustees from the Development Fund.

Macduff Harbour.

This Improvement Scheme is for the accommodation of herring drifters, and consists of a new harbour basin on the east side of the existing harbour. The construction of the new basin was commenced in June, and good progress has been made since then in carrying out the work. The outer sea wall has been erected for a length of 487 feet, and 25,370 cubic yards of excavation, including 1870 cubic yards of rock, have been removed from the basin.

Payment of an instalment of £2500, including a sum of £825, 10s. 8d. for plant, has been made to the Trustees from the Development Fund.

Banff Harbour.

This scheme is for the improvement of the harbour to accommodate herring drifters by deepening the inner basins to a depth of 5 feet below low water of ordinary spring tides. The Trustees were anxious to carry out the work departmentally, without the intervention of a contractor, but the Board were of opinion that tenders should be invited for the work.

Whitehills Harbour.

This scheme is for the improved accommodation of fishing vessels, and consists of a new concrete jetty, and quay wall, and the deepening of a portion of the harbour to the level of low water of ordinary spring tides.

The estimated cost of the scheme is about £3000, towards which a free grant of three-fourths of the total cost, up to a maximum of £2250, is to be provided by the Board, the balance to be met by the Harbour Authority.

The work is being carried out departmentally, and operations proceeded without interruption until November, when, on account of the stormy weather and short daylight, it was considered advisable to suspend operations for the winter months. The concrete jetty has been constructed for two-thirds of its length, the quay wall has been completed, and the whole of the rock excavation has been removed.

Payments amounting to £1500 have been made to the Trustees by the Board in respect of their grant.

Cullen Harbour.

The Improvement Scheme for this harbour has made slow progress during the year. The reinforced concrete retaining wall has been constructed for a length of 330 feet, the new concrete jetty is almost completed, and 10,875 cubic yards of material, including 3205 cubic yards of rock, have been excavated from the harbour basin. On account of the loose nature of the rock under the new footpath at the retaining wall, it has been necessary to increase the rock excavation and to face it with a substantial concrete wall. These and several minor works will increase the total cost of the scheme by about £360.

The first instalment of the grant and loan promised by the Treasury has been paid from the Development Fund, and amounts to £1600. It is expected that the work will be completed during 1915.

Portknockie Harbour.

This Improvement Scheme is to provide wintering accommodation for steam drifters by enlarging and deepening the outer basin of the harbour. It consists of a concrete jetty running inwards from the point of the South Pier for a length of 150 feet to enclose the outer basin; the excavation of the rock in this basin to provide a depth of 3 feet below low water of ordinary spring tides; the extension northwards of the South Pier for a length of 37 feet to narrow the harbour entrance; and the filling up of the creek called the Cross Cave with the rock excavation from the harbour.

The estimated cost of the scheme is £8000, towards which a free grant of £3200 and an interest bearing loan of £2800 are to be provided from the Development Fund, the balance of expenditure to be met by the Harbour Authority.

The engineer is Mr. A. W. Lewis, Westminster, and the question of the adequacy of the scheme is at present under the consideration of the Development Commissioners and the Board.

Findochty Harbour.

This Improvement Scheme is for the enlargement of the harbour to provide additional accommodation for herring drifters. It consists of an inner jetty projecting from the shore towards the harbour entrance, the removal of the rocks inside the entrance to form a spending beach for the waves, the enlargement and deepening of the harbour basin, and the formation of pitched slopes at the south and west sides of the basin.

The estimated cost of the scheme is £6700, towards which a free grant of £1500 and an interest bearing loan of £1500 are to be provided from the Development Fund, and a free grant of £500 from the Fishery Board, the balance of the cost to be borne by the Harbour Authority.

The engineer for the scheme is Mr. A. W. Lewis, Westminster.

Buckie Harbour.

This Improvement Scheme is to provide a wintering harbour for herring drifters, and is an extension of another scheme which has been in progress for about four and a half years for the enlargement of the harbour.

The pier and jetty work of both schemes have been carried out simultaneously, and, with the exception of the facing of the rock underneath the pier walls, they are practically completed. The chief works that still require to be done are the deepening of the new harbour basins, the repair and deepening of the existing harbour, the construction of the quay walls surrounding the wintering basin, the construction of the slipway and repairing berths, and the reclamation and embanking of the foreshore at the west side of the harbour by material excavated from the harbour basins. Operations for the repair and deepening of the existing inner harbour have been commenced by the erection of a cofferdam of concrete blocks across the entrance to this harbour, and most of the enclosed water has been pumped out.

The estimated cost of the two schemes is £163,895, and the expenditure amounts to £104,801, 7s. 11d. The estimated cost of the second scheme is

£35,000, towards which instalments of the free grant and loan, amounting to £16,000 from the Development Fund and £2000 from the funds of the Board, have been paid to the Town Council, as the Harbour Authority.

The engineers, at the request of the Council, have submitted revised estimates for the schemes, from which it appears that the total cost will largely exceed the original estimate if the schemes are completed according to present intentions, and in view of their limited resources the Council have applied to the Board of Trade for further financial aid. The matter is at present under consideration.

Lossiemouth Harbour.

This Improvement Scheme is to provide a boat shelter for the wintering of herring drifters. It consists of a basin in the estuary of the River Lossie, to be dredged to a depth of 2 feet below low water of ordinary spring tides, the entrance to the basin being protected by converging piers or breakwaters; the construction of new timber wharves; the removal of old quays; and the removal and re-erection of the existing foot-bridge.

The estimated cost of the scheme is £15,034, towards which a free grant of £2000 and an interest bearing loan of £10,000 are to be provided from the Development Fund, while a grant of £1000 is to be made by the Board.

The engineers for the scheme are Messrs. D. & C. Stevenson, Edinburgh, and tenders are being invited for the work.

Nairn Harbour.

This Improvement Scheme is for the reconstruction of the East Pier of the existing harbour, and to provide a wintering basin for herring drifters. The reconstruction of the East Pier is to be carried out by sheet piling of reinforced concrete along each side of the pier, surmounted by mass concrete enclosing the fractured pieces of the structure. The wintering basin is situated at the east side of the River Nairn, and is 500 feet long by 260 feet wide, with an entrance from the river 30 feet wide. It is surrounded by pitched slopes, and has a depth of 3 feet below low water of ordinary spring tides.

The estimated cost of the scheme is £18,000, towards which a free grant of £7000 is to be provided from the Development Fund, and also, if not obtainable elsewhere, a loan not exceeding £9000, the balance, if any, to be borne by the Harbour Authority.

The engineer for the scheme is Mr. Alex. Grant, Inverness, and I understand that tenders will be invited shortly for the work.

Wick Harbour.

This Improvement Scheme is to provide additional accommodation for fishing vessels in the estuary of the River of Wick. The scheme is described in my report of last year, in which I also refer to the serious damage sustained by the new river piers during the severe storms of 1912 and 1913.

Nothing further has been done to complete the contract work and repair the damaged piers, with the exception of some dredging which the Trustees have carried out departmentally with their own plant.

Meantime a report is being obtained, dealing with the whole situation.

Whitehall Harbour (Stronsay).

This Improvement Scheme is to provide additional berthing and landing accommodation for herring drifters, by extensions of the existing piers and by dredging in the approach channel to give a depth of 10 feet at low water of ordinary spring tides.

When tenders were invited for the work, it was found that the cost of the scheme would exceed the estimate by the sum of £12,500, and in these circumstances nothing further has been done with regard to the extension of the piers.

The dredging of the approach channel has been executed by Messrs. C. H. Campbell, Ltd., London, at a cost of £12,170, towards which instalments amounting to £4500 have been paid to the Orkney Harbours Commissioners from the Development Fund.

Lerwick Harbour.

This Improvement Scheme is to provide additional accommodation for fishing vessels by the construction of a boat harbour alongside Victoria Pier, and new quays and other works in the vicinity of the pier.

Good progress has been made in the execution of the work. The extension of Victoria Pier, the retaining wall and reclamation of ground, and the boat slip have been completed, while the New Pier has been constructed for a length of 309 feet from the shore.

The estimated cost of the scheme was £17,000, towards which a free grant of £7500 was promised from the Development Fund, and also, if the full amount required is not obtainable elsewhere, a loan not exceeding £10,000, and the contract price is £31,401. Instalments amounting to £5000 have been paid to the Trustees from the Development Fund.

In September a Memorial was submitted to the Development Commissioners by the Trustees making application for assistance in the construction of a patent slipway at the port, the estimated cost of this facility being about £9000, but nothing has yet been done in the matter.

R. GORDON NICOL,
Consulting Engineer.

MEMORANDUM BY MR. WALTER G. COLES, F.S.I.

Ullapool Pier.

The work at this pier, which consisted of an extension of the head of the original pier 102 feet westwards and 46 feet eastwards, along with the construction of a boatslip at the east end of the village, has now been completed, and the Trustees have obtained the necessary certificate from the Sheriff of the County for the opening of the pier to traffic and the exacting of dues.

WALTER G. COLES,
*Chief Surveyor to the Board of Agriculture
for Scotland.*

APPENDIX N.

SALMON FISHERIES.

MR. CALDERWOOD'S REPORT.

FISHERY BOARD FOR SCOTLAND,
April 1915.

I have the honour to report upon my inspections, etc., in 1914.

FORTH.

In the past year, the City of Glasgow made application for an Order to impound the waters of Lochs Voil and Doine in this district, for the purpose of securing an additional supply of water through Loch Katrine, from which loch their culverts are already constructed to Glasgow. Some 72,000,000 gallons are or can be at present taken daily from Loch Katrine, while, by powers secured in 1885, a supply up to 110,000,000 gallons may be delivered.

As Lochs Voil and Doine lie in a separate valley from Lochs Katrine and Vennacher, an extensive engineering feat was proposed, by which a tunnel was to be constructed through the hill which separates the one valley from the other. A dam 45 ft. high was to be erected at the outlet of Loch Voil, the effect of which would have been to obliterate completely the separation between the two lochs, and thus to restore the post-glacial conditions of the valley.

From Loch Voil, the little river Balvaig flows through Strathyre into Loch Lubnaig, from which again, through the Pass of Leny, the water descends to form the Teith after confluence with the water from Loch Vennacher in the other valley.

Before the operations of Glasgow in 1855 and 1885, the two branches of the river Teith and their lochs were of very considerable value for salmon fishing. Loch Vennacher on the one branch, and Loch Lubnaig on the other were the spring fishing lochs of the district. It is safe to say that if the natural conditions had continued to the present day, when so great value is placed upon salmon angling, these lochs would have been in high repute.

With the abstraction of water to Glasgow, and with the steadily-growing requirements of that large city, the value of the salmon fishings in the whole of the Forth district became impaired, and the possibility of any salmon fishing in Lochs Vennacher and Katrine practically came to an end. Salmon passes were erected by Glasgow at very considerable cost at the Loch Vennacher outlet (which have been described in the 26th Annual Report), but the reduction in the water flow no doubt accounted in some degree, as well as the unusual manner in which the sluices work, for the slight success which seemed to follow in ascending fish. The Loch Katrine dam had also a large pass erected at it, but I understand that salmon were never seen in it or in the loch above.

The proposal of Glasgow, in 1914, in connection with the lochs of the

other valley menaced the one remaining source of water supply, and with it the salmon fisheries of the district. Compensation water to the extent of 29,000,000 gallons was proposed, being the third of the estimated average flow. This quantity, I may state, would pass in twenty-four hours through eight 18 inch pipes placed side by side. The salmon river below Loch Lubnaig, supplied by this insignificant water-flow, would have been reduced to a very small stream, the natural spawning grounds would have been laid bare to a great extent, spring fish would in all probability have forsaken the river altogether, and the very gross pollutions which now exist at and below Stirling, to which I made special reference in my last Annual Report, would have been sufficient to produce, in my opinion, a frequently recurring mortality amongst fish in the tidal waters, thus bringing to an end, to all intents and purposes, the net fishing of the Forth estuary.

The proprietors of salmon fishings and the District Fishery Board opposed the granting of the Order in consequence, and, after an inquiry by a Committee of the House of Lords, the Bill was thrown out.

DON.

In my Report published in the 31st Annual Report, p. 241, I referred to the fish passes which have been erected on the river Don, consequent upon the Court of Session action of the Earl of Kintore and others against Messrs. Alex. Pirie & Sons, Ltd., which was decided on 21st December 1901. In that Report I gave two sketch plans, showing the Mugiemooss Dyke Pass as it now exists, and the form of the pass which was previously at this dyke.

A point of special interest in connection with the arrangements come to at Stoneywood Lade, is the automatic manner in which the proper water supply is provided for. By decision of the Court, no water can be taken to the lade till the fish pass is running full. Messrs. Pirie can then draw off 11,000 cubic feet of water per 24 hours in their lade. In the event of a further rise of level in the river, Messrs. Pirie may not take more than their 11,000 cubic feet till the crest of the Stoneywood Dyke is covered by $6\frac{1}{2}$ inches of water. Thereafter the works may have half the surplus supply.

This whole arrangement has not been left to the manipulation of sluices by employees either of the District Fishery Board or of the mill owners, but has been secured by an automatic arrangement of such interest as to deserve a fuller description.

Mr. Alexander Duffus, of Messrs. Wilsone & Duffus, the Clerks to the Don Board, acted throughout the protracted and complicated negotiations, in the interests of the Salmon Fishery Proprietors, and has kindly provided me with the following account of the arrangements :—

Memorandum regarding Operations on various Dam Dykes on the Lower Reaches of the River Don.

As the result of negotiations following the ultimate judgment of the House of Lords in the action at the instance of the Earl of Kintore and others against Messrs. Alex. Pirie & Sons, Limited, Stoneywood, various arrangements were come to in the way of defining and regulating the abstraction of water from the river and the providing of increased facilities for the ascent of fish over the various obstacles in the river bed.

The Agreement entered into between the various parties interested, these being the Fishing Proprietors, the Messrs. Pirie, Stoneywood, the

Messrs. Davidson, Mugiemoos, the Messrs. Crombie, Grandholm, Mr. Paton of Grandhome, and the District Fishery Board, was embodied in and received Parliamentary sanction in the form of the "River Don (Salmon Fisheries) Order Confirmation Act, 1910"; and under the provisions of that Statute the undernoted works have now been executed:

1. At the Stoneywood Dyke the old fish pass has been built up, and a new fish pass 15 feet wide and 20 inches deep, measured downwards from the average level of the crest of the dyke, has been constructed, commencing at a point measuring from the westmost margin of the fish pass 30 feet from the corner of the heck at the intake of the Stoneywood Upper Lade. The pass descends first at right angles to the line of the crest of the dyke at the point of commencement, and then curves round more towards the centre of the river to the toe of the dyke. It consists of three pools, each three feet deep, measured from the crest of the partition wall immediately below it, these walls being constructed of reinforced concrete. The total length of the pass is about 60 feet, and the fall from the sill at the upper end of the pass to the sill at the lower end is represented by the difference between 92.01 and 87.67 o.d.

Under the provisions of the Act of Parliament, the millowners are bound to keep the fish pass running at its full capacity at all times when there is sufficient water in the river for that purpose.

The millowners' rights of abstraction were also settled by the Agreement and subsequent Act of Parliament, and the other works carried out at Stoneywood were designed for the purpose of automatically regulating such abstraction in accordance with the terms of the arrangement come to amongst the various parties.

That purpose has been effected by the construction in the upper lade at Stoneywood, commencing near its intake at the Stoneywood Dyke, of a weir wall 400 feet long, separating the lade proper from a spill water channel formed to receive such water as overflows the weir wall when the conditions in the river are such as to afford a sufficient supply for that purpose.

The Agreement between the parties, as indicated above, was that no water was to be abstracted from the river until the fish pass was running at its full capacity, unless in certain specified exceptional circumstances, that thereafter the Messrs. Pirie were to be allowed to abstract a certain specified quantity of water, but no more, except such as was due to the increased head of water in the lade, until water to a depth of $6\frac{1}{2}$ inches, measured from the average height of the crest of the dyke, was passing over the Stoneywood Dyke, and that thereafter they would be entitled to abstract one half of any excess of water flowing down the river over the quantities already specified.

The automatic regulation desired has been effected by leaving in the weir wall an orifice of dimensions calculated to pass, when the water is lipping the crest of the dyke and the fish pass would consequently be full, the defined quantity of water that the millowners are, by the arrangements, entitled to abstract under these conditions. The weir wall itself has been constructed, after experiment, at such a level as to prevent any water passing over it until the stipulated depth of $6\frac{1}{2}$ inches is passing over the crest of the dyke. The water spilling over the weir wall falls into the spill water channel, which is really a widened portion of the lade, and so finds its way to the turbines.

In order to provide for exceptional circumstances arising from natural conditions, a snow sluice is provided in the lade immediately before the weir wall commences, and in the weir wall itself there is an emergency sluice capable of passing a modified quantity of water for use under certain specified exceptional circumstances.

2. At the Waterton Dyke, which is next downstream from the Stoneywood Dyke, and at which the Messrs. Pirie abstracted water by means of their lower lade, the operations consist of—

- (a) the slapping of the dyke to the river bed for a space of 40 feet ; and
- (b) the closing of the intake sluices to the Waterton Lade, except for a pipe of 12-inch diameter, and a sluice gate to be used for flushing purposes only in times of high flood in the river.

3. At the Muggiemoss Dyke, which formerly presented perhaps the most formidable obstacle amongst all the dykes in the river to the passage of fish, the following works have been executed :—

(a) The building up of the old fish pass and the construction of a new pass in the upper dyke, 12 feet wide and 20 inches deep, measured downwards from the average level of the crest of the dyke. The new pass descends from the crest of the dyke first at right angles to the line of the portion of the dyke at which it commences, and curves round to the right towards the centre of the river, giving entrance to the pool formed by the subsidiary dyke mentioned below.

The total length of this pass is over 70 feet. The bottom is constructed of random rubble pitching, cement grouted, and the difference in level between the water surface above the dyke and in the pool below is 3.66 feet.

At the distance downstream of 124 feet or thereby, measured from the centre of the sill of the upper fish pass to the centre of the sill of the lower fish pass, there has been constructed a subsidiary dyke at the above mentioned difference of elevation below the upper dyke, roughly dividing the fall from the water level above the upper dyke to the water level of the saugh pool below the subsidiary dyke into two equal portions. The subsidiary dyke runs straight across the river, and is provided with a fish pass of the same dimensions in depth and breadth as the fish pass in the upper dyke.

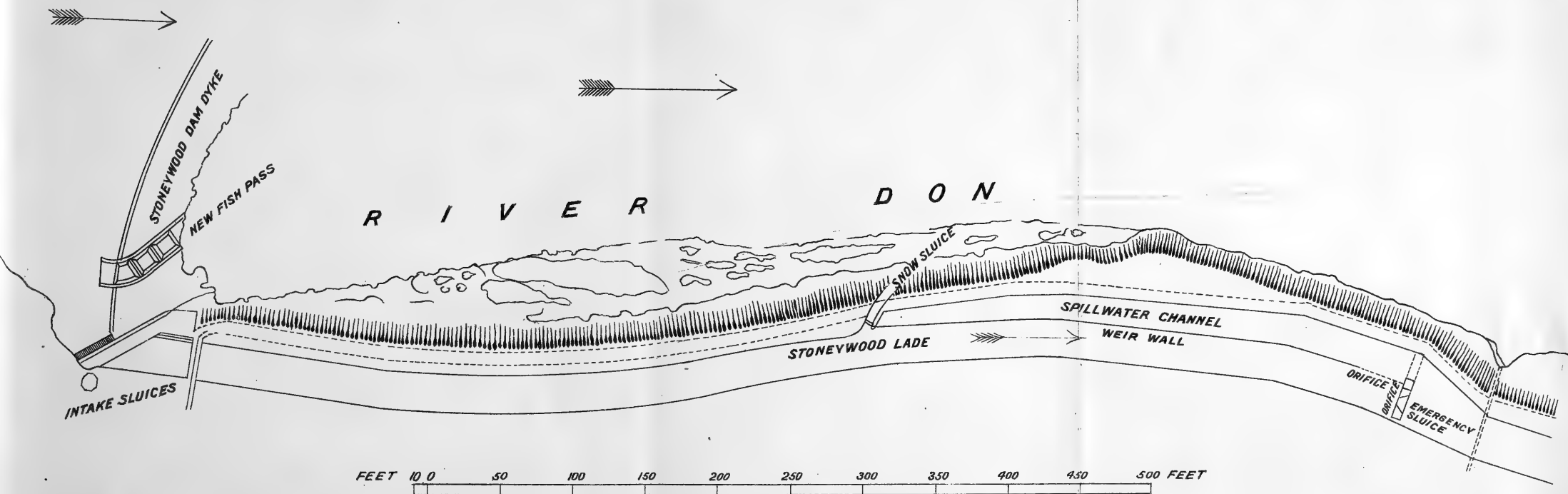
As in the case of the Stoneywood Dyke, the millowners are under obligation to keep the fish pass in the upper dyke running to its full capacity at all times when sufficient water for the purpose is running in the river. Thereafter, and subject to that condition, they may abstract a specified quantity of water from the river, but no more, until water is passing over the crest of the upper dyke to a depth of 7 inches, measured from the average level of the crest of the dyke. Thereafter, as in the case of Stoneywood, the millowners are entitled to take one equal half of any excess of water flowing down the river.

The Messrs. Davidson at Muggiemoss also abstract water for manufacturing purposes by a small upper lade, and the abstraction here has also been settled by agreement.

A tracing of the plan of the fixed orifice and the spill weir in the Stoneywood Lade is also given.

THURSO.

In visiting this district I was interested to find that a new departure in salmon fishing was being experimented with by the tenant of the Ulbster fishings. A 40-foot motor boat, the converted fishing boat M.E. 120, was being employed with a sweep net about 300 yards in length. I was fortunate to be able to observe operations in more than one locality, although I never saw the completion of any shot. Hours were spent waiting for the appearance of fish in numbers sufficient to warrant the shooting of so large a net. The motor boat had with it an ordinary salmon coble, but I did not see any portion of the net shot in Thurso Bay. Some miles



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T

east, however, off the rocky shores half way to Castleton, I found the coble anchored about 60 yards from the shore, and about 150 yards of the net shot out in a curve to where the motor boat kept in a stationary position against the flood tide. One man in the coble, and the other men in the motor boat kept a look out for fish. I saw individual salmon jumping at intervals along this rocky piece of coast, but two hours passed without any shot of the net being completed. So far as I was able to judge the intention, the shot would have been finished by the motor boat moving off so as to run out the remainder of the net in a circular direction to enclose a shoal of fish, bringing the end to the moored coble so that the net should be hauled alongside the motor boat.

I understand, from reports I have since received, that the experiment did not turn out satisfactory.

AILORT.

A proposal came up in 1911 to raise the level of Loch Eilt in this district, so as to be able to create floods at will in the Ailort. The scheme for the erection of a dam dyke and salmon pass took shape in the following year, and a good site for trustworthy foundation was secured, the work being placed in the hands of a Fort-William contractor. It was found impossible to raise the level of the loch more than $5\frac{1}{2}$ feet without flooding the road at one or two points. Even in times of high flood without such artificial banking the road to Arisaig is sometimes flooded. It was found, however, that by clearing the river outlet of an existing obstruction which held up the level of the water below the proposed site of the dam, the control of the loch level could be secured by constructing a dam of only $4\frac{1}{2}$ feet. With regard to the pass, the proposal was to erect a subsidiary dam so as to form a pool, and to have a sluice under control. The work was put in progress in the spring of 1913, but before it was finished a violent flood did serious damage, and brought operations to a standstill.

During last summer, the reconstruction was, however, proceeded with, and I hope on my next visit to the district to see the completed result.

DOON.

Amongst the various sources of pollution in this district, the discharge from the Skeldon Mills has been referred to more than once. Blankets are made at those mills, and the effluent contains soapy waste from the scouring vats, together with an admixture of acids and other toxic substances. In the past, this effluent was collected in a pond having a sluice opening upon the river, and the sluice was kept shut till such time as the river watcher opened it during floods. This arrangement put the responsibility of damage to the fish upon the District Fishery Board, and was manifestly a makeshift. Also, in times of long drought a surplus of the effluent was apt to occur, for the disposition of which there was no provision, and the disposal of which, I presume, had to be effected in some way.

Moreover, a soapy fluid, such as this referred to, does not readily settle at all, but is rather apt to remain in suspension for a considerable time. To resort to a settling pond for its treatment seems, therefore, unscientific. I understand that an attempt was made at one time to neutralise the effluent so as to render it harmless. This was abandoned, however, in favour of the arrangement already referred to by which the officer of the District Fishery Board was given the key of the settling pond sluice.

The quantity of effluent passing into the settling pond appears to be about 15,000 gallons in a ten hours working day. In the mills there is a sulphuric acid tank which contains roughly about 200 to 250 gallons of a fluid found to be 8 per cent. Twaddell, which represents 6 per cent. of pure acid. This tank is run off, I am informed, every three weeks.

A suggestion has now been made to allow the contents of the settling pond to run off into the mill lade gradually during each day, and to allow the contents of the sulphuric acid tank to run out only during Saturday and Sunday, when water is not drawn from the lade, and the lade is running full. This seems to take no account of the provision in Byelaw G (2) of the Salmon Fisheries (Scotland) Act, 1868, which requires that when water is not necessary for uses of the mill, the lade should be closed and the water sent down the dam dyke. In any case, I consider that the contents of this sulphuric acid tank should be kept out of the river altogether.

I learn that certain of the proprietors raised an action in the Sheriff Court in Ayr to have the pollution stopped, and that eventually the defenders put forward a minute undertaking to carry out a proposal by Mr. W. A. Tait, C.E., Edinburgh, to whom the Sheriff had remitted the consideration of the difficulty, without further litigation.

Mr. Tait's proposal, the Clerk of the District Fishery Board informs me, is, shortly, to make two ponds with a floating valve so that the effluent would be free to run out at all times, while one or other pond was being cleaned out. The effluent so let out would be carried in pipes to the foot of the lade, a distance of 200 to 300 yards, and taken out into the middle of the river, where it would be discharged by means of a revolving sprinkler.

There is some fear that this suggestion may have practical difficulties connected with it. The gradient down the lade is slight, and it is feared that a soapy fluid such as this referred to will choke up the pipe and the sprinkler. The proposal seems to me to be of the nature of an improvement upon the existing method, if the practical difficulties suggested are obviated, but treatment by the method of settling, or attempted settling, of a fluid of this kind, seems to me to be unwise if any better plan can be found. Mr. Charles Young, W.S., who has acted throughout for the proprietors in this matter, tells me that by another method pressure can be applied to the soapy fluid so as to recover the greasy solids.

Mr. Harling Turner, the Commissioner to the Duke of Portland, to whom the mills belong, is also considering this alternative method.

LOSSIE.

I am informed that the District Fishery Board has been given up. The little river has in the past suffered seriously from pollution and from the existence of five mill dams, three of which are serious. The pollution has been greatly reduced by the Elgin purification works. The dykes, I fear, remain unaltered. They were reported upon in detail in the 21st Annual Report, Part II. p. 16.

GIRVAN.

A recurrence of pollution seems to have had injurious effects in this river. It will be recollected that some years ago the fish in the river were completely destroyed by the highly impregnated water pumped from a coal pit long disused. That difficulty having been gradually overcome by the working out of the pollution, a new danger has appeared from the systematic manner in which sheep are now required to be dipped, and the

proximity of many of the "dippers" or tanks to the river or its tributaries. The first intimation I received of the matter was by a letter from the Clerk to the District Fishery Board, reporting that a dipper containing about 100 gallons of fluid had been emptied into the Pinwhapple Burn, as a result of which every fish (including eels) for a distance of three and a half miles had been killed. This burn happens to be one of the important spawning tributaries of the river Girvan.

Subsequently I received a list of all the dippers situated in the watershed, and found that they number 22. This list will be found appended to the Report from the Clerk of the Girvan District Fishery Board. It seems necessary for the District Board to take steps to have the purity of the tributaries respected, and care taken that the dip used be put out upon the land.

STATISTICS OF SALMON CATCH.

To any official concerned in the general superintendence of the salmon fisheries, the need for reference to statistics of catch of salmon is clamant. When asked to report, it may be, on proposed changes in this or that district, changes which may affect the general interests and stock of salmon, the most urgent requirement is to secure a clear understanding of the conditions which exist, and their results upon the general interests and stock of salmon in the past. This cannot be obtained at present. We receive from the various Railway Companies a return of the weight of salmon carried from all stations, this return being given gratuitously and after considerable labour of an extra kind on the part of railway clerks. It is a very valuable return, since it is frequently the only one we have from which any deduction can be made, apart from personal knowledge picked up by the Inspector of Salmon Fisheries when going his rounds, as to the increase or decrease of the stock of salmon in a district. It is, however, subject to rather serious limitations in its application. In districts where grilse are in the majority, weights give little indication of numbers. Weights given from the Tay District, for instance, where fish are heavy, bear no relation whatever to weights given from districts in the North of Scotland, especially on the Pentland Firth shore, where eight or ten little grilse will be caught for every salmon. Another limitation is due to the fact that in many districts where the railway station is many miles from the fishings, salmon are carted from a number of different places, and not infrequently from a separate district to that in which the railway station is situated. The catches of different places being thus intermingled it is quite impossible to make deductions of any value.

The objection on the part of salmon tacksmen to giving regular returns is that their rents will be affected. None the less in the case of all Crown fishings now let, the rendering of an annual statement of catch is made obligatory, and similarly, certain proprietors let their fishings with this condition attached. I am greatly indebted to the Office of Woods for allowing me to receive copies of the returns sent to the London Office, although these returns may not be used except for my own information. Certain proprietors and tenants are also quite willing that I should have this class of information provided it is regarded as confidential. If every one gave the like confidential information, one would be perfectly satisfied. There is no particular reason why such information should be published, and if any such information were published, it should only be done in such a way as to obviate any deductions as to the results from individual fishings—a matter of no difficulty.

As an example of the sort of information with which I am favoured

from certain sources, I might refer to the Annual Report I now receive from the Tweed Commissioners.

The Tweed is outwith any official supervision on my part, yet, since it may fairly be regarded as a Scottish District, or is certainly in the main a Scottish District, it has been thought desirable that information from it should be accorded to the Fishery Board for Scotland. The Tweed is under its own Acts, and governed by its own Police Committee; yet a Report is sent annually in which statistics of catch by sea nets, by river nets, and by rods, are given. Reference to the Appendix to this Report, p. 265, will show that in 1914 the sea nets produced 5900 fish, the river nets 18,334, and the rods 2391, and that in each case this was below the average. The sort of answer with which I am familiar from very many District Fishery Boards is, "This information cannot be obtained," or "The fishermen will not give the information." I have no doubt at all that if a little more trouble were taken the information might be obtained just as it is obtained in the Tweed District, and if there are tacksmen in a district who will not furnish accurate information to the officers of a District Board, I believe it is probable they would offer no objection if asked to post to the Inspector in Edinburgh a strictly confidential return. At the same time there is no power to compel returns.

Amongst anglers, I have not as a rule found such difficulty in getting information. For instance, when, in 1907, the proprietors of salmon fishings in the Deveron District bought up the remaining nets in the River Deveron and Bay of Banff, and established a new regulative treatment for their river, they at once agreed to my suggestion that they should furnish me with a confidential return of the rod catch of the river. Although one does not know what the rod catch was before this period, one is certainly in a position to note any progressive change after the removal of the nets. The matter is of very considerable importance in our knowledge as to the best treatment of rivers. Immense improvement has of recent years been noticed in the Wye in England, by the adoption of a definite policy in regard to nets. No demonstration of this would have been possible had not information as to the actual catch been available.

But I also find that those who are carrying out a definite policy of improvement may take the view that the matter is of interest to themselves alone, and may decline absolutely to give information for the possible benefit of others. In one of the leading Fishery Districts in Scotland, a very important series of river nets was removed a few years ago. The proprietors interested were fully aware of the value likely to result to the rod fishing, and a careful record was kept of the rod catch, a considerable number of individuals annually reporting their totals to one proprietor. Believing that the removal of the nets had turned out as expected, and that a valuable record of the benefit to the stock of fish in the district was available, I asked if I might be allowed to reproduce in this Report the totals for the river without reference to any individual fishery. From experience in all other Scottish Districts in which I have made similar requests, I anticipated no refusal. I was informed, however, that the records were strictly private, and that I could not be allowed to use them in any way; that the giving of the records would be a breach of confidence. Knowing that this view was not shared by all who gave the writer his records, I offered to communicate with the various individuals, asking if the giving of the totals would be objected to. Since, however, the individual who held the totals would not even then have given them, I dropped the matter for that season. My next effort met with no better success. My request was bluntly refused, and I was reminded that I had already been refused. I applied to the District Fishery Board, but was informed they had not the figures in question. The fact that they were

available made no difference. In the correspondence I had on the subject no attempt was ever made to show that there was some reason why my having the totals would be prejudicial to any interest involved. If any reason of this kind had been given, I would have accepted it at once, as at any rate an explanation why, in the opinion of those specially interested, the figures should be withheld. I have no desire to prejudice any private interests in making such a request. I therefore remain with the feeling that in seeking what I conceive to be a public interest—and it is with public interest alone that I am concerned—a rather remarkable, and, I am pleased to say, an altogether exceptional refusal has been accorded me.

I consider the matter worthy of the consideration of the Board in view of the importance of obtaining information of this kind. It may be recollected that in the Report of the Royal Commission on Salmon Fisheries, 1902, reference was made to the importance of such statistics. The Commission state (p. 16) "We think that this is a case where the public advantage ought to outweigh the private objection, and that powers should be given to the Central Authority in England and Scotland respectively, to obtain statistics by methods already adopted for other purposes of government, by which inquisitorial treatment and unnecessary publication are avoided."

It is, now, impossible for me to seek information from the source referred to until statutory powers are obtained.

BYE-LAWS RESPECTING FISH PASSES.

The Salmon Fishery interests as compared with the interests of those who derive water from a river for mill purposes, the owners of dam dykes, have always been a fruitful source of difficulty.

If the Bye-laws of the Salmon Acts are not complied with, it rests with the Clerk of a District Fishery Board to take the necessary steps before the Sheriff. But a clerk may or may not be instructed to do so by his Board, and the circumstances in which the members of a Board find themselves, or, to put it another way, the interest which certain members of a Board may have in avoiding the application of the Bye-laws, explains the very different ways of District Boards in this particular.

It appears also that one is liable to be misled by the reports which may be received on such matters. In one of the reports appended the statement was made that the Salmon Acts were complied with. As I had compiled a report as far back as 1902 dealing with the seven dam dykes of the district and the absence of any attempt to fulfil the requirements of the Acts, I took steps to ascertain the facts. I then found that the statement was entirely misleading; and I was further informed by the Clerk to the District Board that his Board have always held the view that there is nothing in the river which amounts to a non-compliance with the Bye-laws. I am sorry to state also that a letter to the Chairman of the District Board asking if he supported this view expressed by the Clerk brought no reply.

Unfortunately, the matter ends here for want of powers on the part of a neutral authority to adjust matters between the interests involved. In a district such as that referred to the salmon interests, as provided for by the Salmon Acts, have no place as compared with the interests which are opposed.

SEA TROUT.

For statutory purposes, sea trout are regarded as salmon. The Salmon Fisheries (Scotland) Act, 1862, defines the word "salmon" as including "sea trout, bull trout," as well as smolts and parr.

It is certainly convenient that this definition should hold, since salmon, grilse, and sea trout are all caught together by the same methods of fishing, either in the sea or in the tidal waters of rivers; since they are somewhat similar in habit, and belong to the same genus. None the less the curious anomaly remains that from the point of view of the systematic ichthyologist, the sea trout is indistinguishable from the brown trout which lives in fresh water. To separate them is simply a convenient economic arrangement.

The sea trout is a silvery migrating fish as it comes from the sea to the river, and at such times it is sharply distinguished from the fresh-water trout. Even after it has spent a considerable time in fresh water and has spawned, it is still easily recognised, and so long as its habit of life is similar to that of the salmon, no difficulty should arise. The brown trout has a way, however, of descending to estuaries, of feeding upon marine or estuarial food, and of gaining certain qualities which are associated with salt water. When large trout with slightly silvery sides and slightly yellow bellies are found in an estuary, the difficulty arises,—Are they sea trout, *i.e.* salmon, or are they fresh-water trout? The late Dr. Günther of the British Museum described several of these trout from different localities, and regarded them as separate species. Thus the well-known slob trout of Ireland he called *Salmo estuarius*, while the fish of Orkney, which naturally passes to and fro in brackish water, he called *S. orcadensis*. Any number of similar creatures are to be found in the Outer Hebrides, while, as every trout angler knows, marked differences are to be found in the general appearance of trout caught in a great variety of lochs and streams in our country. Even in one small loch trout of very different appearance may be obtained. I might mention as an example, a small loch, inaccessible to migratory fish, high up in the island of Raasay, between Skye and the mainland. Here ordinary little red-speckled trout may be caught, and here also trout as clear and bright as new silver.

Similarly, in the case of Loch Leven trout, it was found many years ago, when the late Sir James Gibson Maitland was a member of the Fishery Board, and when the late Francis Day was experimenting at Howietoun, that certain changes of feeding produced silvery red-fleshed fish, or brown white-fleshed fish. Again, small red-speckled Dorsetshire trout transported to New Zealand and put in a river where no salmonidæ previously existed, grew amazingly, went down to the sea, became perfectly silvery, and finally were described as pure sea trout. This New Zealand experience is only a well-defined example of what our own British trout have always been doing in a rather more obscure manner.

There is only one species of British trout, whether *fario* or *ferox*, *levenensis* or *trutta*, *estuarius* or *orcadensis*. If the fish of different appearance, caught in different localities, be preserved, and if they be compared after the external colouration and skin markings have faded, they will all be found alike, so far as features of any specific value are concerned.

It need not follow, however, that names for local varieties may be given up, any more than that the name sea trout or brown trout should be given up. There is considerable interest in the features of a Loch Leven trout or a Gillaroo.

It is customary to distinguish two British races of sea trout, *Salmo trutta*, the form we are most familiar with in Scotland, and *S. cambricus*, the sewin of Wales and the south of England, and the white trout of Ireland. In my view the so-called bull trout of the Tweed and Coquet has an equal right to be regarded as a local race. I have elsewhere *

* Proc. Roy. Soc. Edin. xxv., Part i. p. 27.

described this fish, and shown that it is not to be confused with the so-called bull trout of the Tay, Forth, Ness, and other rivers, which fish is merely a large salmon which bears the signs of having spawned. It is a robust variety which has ousted the typical sea trout, and has now become well established. In the Coquet at one time an effort seems to have been made to exterminate it in favour of the salmon, but the attempt failed. It is generally rather easy to seriously reduce the stock of such fish if the annual close time is not observed.

This brings me to the reason for my specially mentioning the sea trout in this Report. A serious decline of the stock of sea trout in most parts of Scotland has been noticed in the last two or three seasons. There are not a few districts where a considerable proportion of sea trout is relied upon to bring the salmon fishery catch up to paying proportions. This has recently failed, and the reason for the failure is not very easy to determine. It is true that sea trout spawn as a rule at a rather earlier date than salmon, and that, therefore, the annual close time for salmon is not really fair for the trout. For many reasons connected with the policing of our fresh-water fisheries, this arrangement must be supported, and, at the same time, there are many localities where, though rods catch sea trout relatively near their spawning season, this fact can scarcely be regarded as in any way likely to have influenced the result.

There are other localities where no sea trout netting of any legal kind is carried on, and where, if it were, the salmon nets of legal mesh would not readily capture the small sea trout which are most common. Nor is it the case that the "splash netting" or "scringing," so common at one time in the West Highlands, is now very much practised. For this benefit we are largely indebted to the action of Mr. Morris of the Fishmongers' Company in stopping the markets for such ill-gotten gains.

There are no doubt local circumstances in certain districts, such as the gross pollutions of the Forth below Stirling, which have killed off large numbers of fish, but an equal loss in other districts is noticeable although no pollution is present.

We require rather fuller knowledge of the habits of this minor salmon. There is much evidence to show that it is more estuarial in habit than *S. salar*. The sea trout smolts or yellow fins do not go straight out to salt water when they meet the tide on their descent, as the salmon smolts do. They hang about and feed in the estuaries. The adult fish feed not only in estuaries but also in fresh-water as the salmon do not. The finnock, phinoc, herling, or whitling, *i.e.* the grilse of the sea trout, ascend our rivers in shoals for some distance but drop back again to the sea before they ascend for the purpose of spawning. This cannot be regarded as a regular habit amongst young salmon, although many adult salmon appear to drop back individually in this way. It is generally accepted that sea trout do not go far from the coast, and the estuarial habit first referred to lends strength to this view no doubt. None the less I have photographs in my possession of sea trout taken by herring fishers 45 miles east of Montrose, and I have specimens of beautiful clean sea trout taken in the month of October about 30 miles off Lowestoft, and I received a single specimen at another time taken 30 miles off Berwick. I think we have as much reason to say that grilse and salmon do not go far from the coast as to say this of sea trout. It has always been difficult to obtain information as to the movements of the salmonidæ when out of the range of nets suitable for their capture. Also in the recaptures of marked fish made in the sea during the past season, which form the subject of a separate paper,* we have obtained, although very few sea trout were marked, some records which show that these fish travel to considerable distances; for

* Fisheries, Scotland, Salmon Fish., 1914, III.

instance, one fish marked at Rosemarkie on the Black Isle was recaptured at the mouth of the River Don on the Aberdeenshire Coast, the distance being 126 miles east and then south, in 17 days.

Clean sea trout ascend our rivers in spring as clean salmon do, although the runs are not so well marked. On the East Coast, they may be found in such rivers as the Tweed, Forth, Tay, Beaully, etc., and on the West Coast in the Awe and other of the larger rivers, and also in the Outer Hebrides, in the river Grimersta. In winter netting for the purpose of marking salmon, I have found them in the Beaully, in beautiful condition, as early as the end of December.

In the great majority of districts, however, one does not expect large runs of sea trout till summer time, while in the Outer Hebrides, in Orkney, and more especially in Shetland, autumn is regarded as the best time. In Shetland sea trout are not much looked for in fresh water till September, while October is the time of the largest runs, the rod fishing season continuing till 15th November.

Season 1914, as already noted at the commencement of this Report, was rather singular on account of extreme variations in the success or non-success of the coast fishings. It is therefore a season from which we may not be able to draw normal deductions. The results of sea trout fishing seem to have been equally variable, and to have varied to some extent co-extensively with the salmon fishing. For instance, the catch in Nairn neighbourhood is reported as "above average," while the catch in the Forth was about the worst within living memory. The report from the Solway Dee is "much better," while from Ayr it is "very much below average." There is a patchy condition of things round our coasts east and west which is unusual. In this connection, however, one should not forget that there are certain localities such, for instance, as the coast round Tarbet Ness in the Moray Firth, and off Caithness where sea trout never seem to be much in evidence.

It will be advisable, however, to watch the sea trout fishing results with more attention than they have commonly received in the past.

In the case of the Outer Hebrides, famous for large numbers of sea trout, and where alteration in the methods or amount of fishing do not seem to come into the argument, it is interesting to find from the following two instances that a similar discrepancy seems to appear. From the keeper of the famous Howmore district in South Uist I hear that "During the past three or four years the Howmore fishing has been very good. . . . We have not noticed any decrease in the stock." He adds that the weights do not perhaps run as heavy.

With regard to the Grimersta in the Lewis there is, on the other hand, a distinct decline as the following figures, for which I am indebted to Mr. George Pople, till recently tenant of the famous little river, bear out :—

Sea Trout.		Sea Trout.	
1901.	1390	1909.	548
1902.	1553	1910.	808
1903.	1063	1911.	587
1904.	1177	1912.	749
1905.	1068	1913.	567
1906.	1653	1914.	495
1907.	786		
1908.	510		

av. 1296

av. 673

av. 1004

APPENDIX O.

AN ABRIDGED STATEMENT OF REPORTS FROM DISTRICT FISHERY BOARDS AND OTHERS.

REPORT FROM TWEED DISTRICT.

Take of Fish—

1. The number of salmon and grilse :—
 - (a) By fixed engines in the sea, 5900.
 - (b) By sweep net in tidal or fresh waters, 18,334.
 - (c) By rod and line, 2391.
- Note.*—A considerable number of fish are caught in the open waters of which it is impossible to give an estimate.
2. The estimated catch in relation to that of former years was :—
 - (a) By fixed engine—Below average.
 - (b) By sweep net—Below average.
 - (c) By rod and line—Below average.
3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov
By Fixed Engine	..	..	..	..	28	32	30	14 days 10	..	..
By Sweep Net	2·0	6·6	9·7	16·7	14·0	22·0	19·0	14 days 10·0	..	..
By Rod and Line	15·57	15·57	14·0	9·44	1·46	0·63	0·63	4·58	5·10	33·02

4. Sea trout :—
 - (a) The number taken was 17,850.
 - (b) As compared with previous years—Below average.
5. The weight of the heaviest salmon taken during the season was 45 lb.
The particulars of time and place of capture are :—In Tweed at Ednam House Water, Floors, Kelso, on 21st November 1914.

Protection—

1. The assessable rental for 1913-14 was £15,936 14s.
2. The assessment levied was £3187 6s. 11d.
3. The number of water bailiffs employed was as follows :—9 in July, 9 in August, 17 in September, 39 in October, 50 in November, 48 in December, 44 in January, 29 in February, 21 in March, 16 in April, 16 in May, 9 in June, and 1 engineer all the year.
4. Particulars as to prosecutions instituted are briefly as follow :—Prosecutions were instituted against 118 persons in season 1913-14. Sixty persons paid fine or were allowed time to pay, 37 persons were imprisoned, 4 absconded, 11 persons were admonished or acquitted, and proceedings were withdrawn in the case of 6 persons.

The principal offences were :—Killing salmon by means of illegal nets, cleek and light, and rake-hooks, being in illegal possession of salmon and engines for killing salmon, and assaulting and obstructing bailiffs,

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—A new cauld has been built across the Gala by the Galashiels Electric Company at their works. This cauld is no obstruction to the free run of fish.
2. Are the bye-laws observed in every case ?—Bye-laws strictly enforced.
3. Fish passes built or in prospect :—None.

Pollutions—

1. The existing pollutions are :—Poisonous matters from mills and dyehouses in Selkirk, Peebles, Innerleithen, Walkerburn, Galashiels, Hawick, Jedburgh, and Chirnside ; household sewage from Biggar, West Linton, Eddleston, Melrose, St. Boswells, Kelso, Coldstream, Sprouston, Ancrum, Lilliesleaf, Earlston, Lauder, &c.
2. Remedial measures :—There are settling tanks connected with all the mills in Peebles which intercept the grosser parts of the mill effluent, but they are not very satisfactory.
There are purification works connected with the mills in Selkirk, erected about 36 years ago, which need repairing very badly.
A new system of drainage has been instituted in Galashiels, and most of the factories are now connected with it. It is a great improvement.
In Hawick there are irrigating tanks in a field, but they are not worked satisfactorily.
A purifying plant is in use at Chirnside Paper Mill, which is working fairly well.

The Salmon Disease—

1. Disease made its appearance this year in the month of November, and reached its height in January.
The river was free of diseased fish in May.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts	1021	549
Clean	65	54

The Spawning Season—

1. Fish were first noticed spawning on 13th October
2. The greatest number spawned in December.
3. Spawning ceased in February.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as good.

Smolts—

1. Smolts were noticed to be migrating seawards in April and May.
2. As a smolt year 1914 was very good.

*REPORT FROM FORTH DISTRICT.***Take of Fish—**

1. The estimated catch in relation to that of former years was :—
 - (a) By fixed engine—Salmon about the average ; grilse below.
 - (b) By sweep net—Salmon above the average ; grilse below.
 - (c) By rod and line—Below the average.
2. Sea Trout :—
 - (a) The number taken cannot be given.
 - (b) As compared with previous years—Below the average.
3. The weight of the heaviest salmon taken during the season was 45 lb.
The particulars of time and place of capture are :—15th August 1914, St. Monans.

Protection—

1. The assessable rental for 1914 was £3796 3s. 8d.
2. The assessment levied was 4s. per £.
3. The water bailiffs employed are 10 in number and 1 superintendent.
4. Particulars as to prosecutions instituted are briefly as follow :—Proceedings were taken in 4 cases, implicating 7 men. The cases consisted of breach of the weekly close time, illegal possession of gaffs or cleeks, and being in possession of salmon smolts.

Obstructions to the Passage of Fish—

Extensive alterations and improvements have been made on the dam dyke across the River Allan at Dunblane, with the result that it has proved, during this season and last, an insuperable obstacle to the passage of ascending fish. Large numbers of fish have been taken from the river below the dam and returned to the river above the dam.

The owners of the dam dyke (the Dunblane Gas Company) have been called upon by the District Fishery Board to construct a salmon pass or ladder on the down-stream face of the dam dyke, in accordance with the regulations annexed to the Salmon Fisheries (Scotland) Act, 1868. They have refused to do so, and allege that to construct such a pass or ladder would materially affect the water rights pertaining to the mill, which they have enjoyed from time immemorial. An action is at present pending in the Sheriff Court at Dunblane.

Pollutions—

1. The existing pollutions are :—Dyeworks, paper works, tanneries, bleach works, gas works, and coal pits.
2. Remedial measures :—The District Fishery Board, with the limited powers at their command, are doing all they can to mitigate the existing pollution in the river, and particularly, they are watching fresh sources of pollution and taking measures to stop them. They are also endeavouring to get the County Councils and District Committees to put in force the provisions of the Rivers Pollution Prevention Act, with a view to stop, or at least greatly to mitigate, the existing pollutions.

The Salmon Disease—

1. Disease made its appearance this year in the month of October and reached its height in January.
The river was free of diseased fish in May.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts	272	68
Clean	9	—

The Spawning Season—

1. Fish were first noticed spawning on 15th October.
2. The greatest number spawned in December.
3. Spawning ceased at end of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as a good one for salmon and sea trout, but grilse were very scarce.

Smolts—

1. Smolts were noticed to be migrating seawards in March, April, May, and June.
2. As a smolt year 1914 was about the average.

Changes in Office-Bearers of District Board—

Sir A. K. Muir of Blairdrummond has been elected a representative of the Upper Proprietors, in place of Captain W. A. S. Home-Drummond Moray of Abercairney.

REPORT FROM TAY DISTRICT.**Take of Fish—**

1. The number of salmon and grilse :—

(a) By fixed engines in the sea	}	Not available.
(b) By sweep net in tidal or fresh waters		
(c) By rod and line, 2723.		
2. The estimated catch in relation to that of former years was :—
 - (a) By fixed engine—Below average.
 - (b) By sweep net—Below average.
 - (c) By rod and line—Above average in spring, below in autumn.
3. Sea trout :—A poor season.
 - (a) The number taken was unknown.
 - (b) As compared with previous years—Below average.
4. The weight of the heaviest salmon taken during the season was 56 lb.
The particulars of time and place of capture are :—July. Estuary.

Protection—

1. The assessable rental for 1914 was £24,399 15s.
2. The assessment levied was 6 per cent.
3. The water bailiffs employed are 18 in number.
4. Particulars as to prosecutions instituted are briefly as follow :—

Number of cases tried	9
Number of persons involved	13
Fines and expenses paid—persons	3
Expenses paid—(no fine imposed)	1
Imprisoned	6
Absconded	3
Total convicted	13

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—No change since last report.
2. Are the bye-laws observed in every case ?—Yes, so far as known.
3. Fish passes built or in prospect :—No change since last report.

Pollutions—

1. The existing pollutions are :—No change since last report. Town sewage pollution is increasing with the rise in population.
2. Remedial measures :—No change.

The Salmon Disease—

1. Disease was present in the river all the year. Appeared worst in December and January.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts	400	350
Clean	10	7

The Spawning Season—

1. Fish were first noticed spawning on 24th October.
2. The greatest numbers spawned between 10th November and 20th December.
3. Spawning ceased after first week in January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as below the average, there being a short supply of fish.

Smolts—

1. Smolts were noticed to be migrating seawards in March.
2. As a smolt year 1914 was considered a good average in numbers. The smolts were also of a good size.

Changes in Office Bearers of District Board—

At the triennial election of the Board held in October 1914, the following members were elected :—

By Lower Proprietors.
The Earl of Wemyss and March.
Colonel J. A. G. Richardson Drummond
Hay of Seggieden.
Commander W. Maitland Dougall, R.N.,
Scotsraig.

By Upper Proprietors.
The Earl of Mansfield.
The Earl of Ancaster.
J. Stewart Robertson of Edra-
dynate.

Chairman :—

The Tay Salmon Fisheries Co. Ltd., as the Proprietor having largest rental.
Other officials as before.

REPORT FROM SOUTHESK DISTRICT.

Take of Fish—

Information not available.

Protection—

1. The assessable rental for 1914 was £3526.
2. The assessment levied was £352 12s.
3. The water bailiffs employed are 8 in number during the close season and 3 during the summer.
4. Particulars as to prosecutions instituted are briefly as follow :—Four cases reported implicating 5 persons, 2 of these were convicted, in 1 the decision was “not proven,” and no proceedings were taken against 2.
Offences :—Using drag hooks, taking unclean salmon, and being in possession of salmon in close time.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Fairly well observed. There is an improvement within recent years.
3. Fish passes built or in prospect :—None.

Pollutions—

1. The existing pollutions are :—The town and bleachfields of Brechin.
2. Remedial measures :—No change since last year.

The Salmon Disease—

1. Disease made its appearance this year in the month of November, and reached its height in January.
The river was free of diseased fish in June.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts	615	1065
Clean	23	86

The Spawning Season—

1. Fish were first noticed spawning on 20th October 1913.
2. The greatest number spawned during last week of November and first week of December.
3. Spawning ceased about end of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as an average one.

Smolts—

1. Smolts were noticed to be migrating seawards early in April, and continued during May and June.
2. As a smolt year 1914 was a good average.

*REPORT FROM NORTH ESK DISTRICT.***Take of Fish—**

1. The number of salmon and grilse taken by rod and line in September and October 1914, was 26.
2. The estimated catch by fixed engine and sweep net in relation to that of former years was a fair average.
3. The catch of sea trout as compared with previous years was a good average.
4. The weight of the heaviest salmon taken by rod and line during the season was about 38 lb.

The particulars of time and place of capture are :—October. Morphie.

Protection—

1. The assessable rental for 1914 was £7745 10s.
2. The assessment levied was 5 per cent.
3. The water bailiffs employed are 12 in number, including superintendent.
4. No prosecutions instituted.

Obstructions to the Passage of Fish—

1. No dam dykes disused, built, or in prospect.
2. Bye-laws observed in every case.
3. No fish passes built or in prospect.

Pollutions—

1. The principal existing source of pollution is the effluent from Northesk Distillery (when working), about a mile from the mouth of the river. It has not been working, however, for several years.
2. Remedial measures :—Filtering tanks.

The Salmon Disease—

1. Disease made its appearance this year in the month of October 1913, and reached its height in December 1913.
The river was free of diseased fish in March 1914.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Unspawned and partly spawned	179	292
Kelts	147	62
Clean	6	45

The Spawning Season—

1. Fish were first noticed spawning on 9th November 1913.
2. The greatest number spawned during November 1913.
3. Spawning ceased in January 1914.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as a fair average.

Smolts—

1. Smolts were noticed to be migrating seawards in April and May 1914.
2. As a smolt year 1914 was good.

*REPORT FROM BERVIE DISTRICT.***Take of Fish—**

1. The estimated catch in relation to that of former years was :—
 - (a) By fixed engine—Salmon, average ; grilse, below average.
 - (b) By sweep net—Salmon, average ; grilse, below average.
 - (c) By rod and line—None.
2. Sea trout :—The number taken was about an average for sweep net, and by rod and line above average.

3. The weight of the heaviest salmon taken during the season was 47 lb.
The particulars of time and place of capture are :—11th July, in a bag net at West Shieldhill.

Protection—

1. The assessable rental for 1914 was £1095 13s.
2. The assessment levied was $12\frac{1}{2}$ per cent.
3. The water bailiffs employed are 4 in number.
4. No prosecutions instituted.

Obstructions to the Passage of Fish—

1. No dam dykes disused, built, or in prospect.
2. Are the bye-laws observed in every case ?—Yes.
3. No fish passes built or in prospect.

The Salmon Disease—

1. Disease made its appearance this year in the month of January, and reached its height in April.
The river was free of diseased fish in April.
2. The number of diseased fish taken from the river and destroyed was 54, all kelts.

The Spawning Season—

1. Fish were first noticed spawning on 29th November 1913.
2. The greatest number spawned in December and January.
3. Spawning ceased about 15th February.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as having been very good.

Smolts—

1. Smolts were noticed to be migrating seawards in the months of April, May, and June.
2. As a smolt year 1914 was very good.

REPORT FROM RIVER DEE DISTRICT, ABERDEENSHIRE.

Take of Fish—

1. The estimated catch in relation to that of former years was :—
 - (a) By fixed engine—Below average.
 - (b) By sweep net—About an average.
 - (c) By rod and line—About an average. In the spring considerably above average, but in autumn very much below average owing to low state of river.
2. Sea trout :—
 - (a) The number taken is unknown.
 - (b) As compared with previous year—Below average.
3. The weight of the heaviest salmon taken during the season was 41 lb.
The particulars of time and place of capture are :—In August, at the Aberdeen Harbour Commissioners Coast Fishings, near to the estuary, by fixed engine.

Protection—

1. The assessable rental for 1914 was £18,784 19s 2d.
2. The assessment levied was $5\frac{1}{2}$ per cent. thereon—£1033 3s. 7d.
3. The water bailiffs employed are 25 in number.
4. Particulars as to prosecutions instituted are briefly as follow :—There were 4 prosecutions for breaches of the Salmon Fisheries Acts implicating 5 men :—2 men (1 case) for taking salmon by means of a net during annual close time ; 1 man (1 case) for using an instrument for dragging for salmon ; 2 men (2 cases) for being in possession of unclean salmon—5 men, 4 cases.

In three of the cases the men were convicted, and the penalties ranged from £1 10s. 6d. of expenses to a fine of £1, plus the expenses, with the alternative of from 7 to 14 days. One of the men went to prison. In the case of 2 men the sentences have not yet been put in force. In the case against 2 men the charge was found "not proven."

Obstructions to the Passage of Fish—

Dam dykes disused, built, or in prospect.—None.

Pollutions—

1. The existing pollutions are:—From paper mills at Culter, about 8 miles above river mouth. Also sewage from small towns on the banks of the river.
2. Remedial measures:—No special action taken in 1914.

The Salmon Disease—

1. Disease made its appearance this year in the month of November, and reached its height at end of January.
The river was practically free of diseased fish at the end of May.
2. The number of diseased fish taken from the river and destroyed was as follows:—

	Males.	Females.
Kelts	1050	260
Clean	20	10

The Spawning Season—

1. Fish were first noticed spawning at beginning of November.
2. The greatest number spawned in December.
3. Spawning practically ceased by end of January.
4. Owing to the large number of spring and summer fish, fresh weather, and good running waters, the spawning season was exceptionally good.

Smolts—

1. Smolts were noticed to be migrating seawards at beginning of April.
2. As a smolt year 1914 was slightly below an average.

REPORT FROM DON DISTRICT, ABERDEENSHIRE.

Take of Fish—

1. The estimated catch in relation to that of former years was:—
 - (a) By fixed engine—Below the average.
 - (b) By sweep net—Above the average.
 - (c) By rod and line—Below the average.
2. Sea trout:—
 - (a) The number taken is unknown.
 - (b) As compared with previous year—Rather under the average.
3. The weight of the heaviest salmon taken during the season was 41 lb.
The particulars of time and place of capture are:—By fixed engine at South Station, Nether Don Fishings, near the estuary of the river, in the month of August.

Protection—

1. The assessable rental for 1914 was £3998 18s. 1d.
2. The assessment levied was at 19 per cent. thereon—£759 15s. 11d.
3. The water bailiffs employed are 15 in number.
4. Particulars as to prosecutions instituted are briefly as follow:—There were 12 prosecutions for breaches of the Salmon Fisheries Acts implicating 21 men:—9 men (5 cases) for taking or being in possession of unclean salmon; 4 men (3 cases) for using or being in possession of a gaff; 1 man (1 case) for being in possession of salmon during annual close time; 2 men (1 case) for using an instrument for dragging for

salmon; 3 men (1 case) for trespassing with intent to kill salmon; 2 men (1 case) for taking salmon by means of a gaff, without legal right or permission of the proprietors.

One of the above cases was settled out of Court. In the others all were convicted except one who has not yet been tried (he having left the town). The fines ranged from 11s. 6d., the amount of the expenses to £4 and expenses, with the alternative of from 5 to 40 days. In one case the accused was admonished and dismissed on account of his youth. Of the others, 3 paid their fines, 8 went to prison, and 5 sentences have not yet been put in force.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—During this year the improvements at Stoneywood Dam Dyke were finally completed, and are now in full working order.
2. Are the bye-laws observed in every case ?—No cause for complaint.
3. Fish passes built or in prospect :—None.

Pollutions—

1. The existing pollutions are from paper and tweed mills on the lower river, and also to some extent from towns bordering on the river.
2. Remedial measures are being considered with a view to reducing the pollution from mills, &c., to the smallest amount possible.

The Salmon Disease—

1. Disease made its appearance this year in the month of October, and reached its height in December.
The river was free of diseased fish in beginning of May.
2. The number of diseased fish taken from the river and destroyed was as follows :—

						Males.	Females.
Kelts	.	.	.	.	.	320	60
Clean	.	.	.	.	.	1	2

The Spawning Season—

1. Fish were first noticed spawning at beginning of November.
2. The greatest number spawned about first week of January.
3. Spawning practically ceased at end of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as rather below the average. The low state of the river prevented a good many fish from reaching the spawning grounds.

Smolts—

1. Smolts were noticed to be migrating seawards in the beginning of April.
2. As a smolt year 1914 was about an average.

REPORT FROM RIVER YTHAN DISTRICT.

Take of Fish—

1. By rod and line—80 salmon.
2. The estimated catch in relation to that of former years was :—
(a) By fixed engine—A good average.
(b) By rod and line—Below the average.
3. The weight of the heaviest salmon taken during the season was 40 lb.
The particulars of time and place of capture are :—30th July, in a bag net near the mouth of the river Ythan.

Protection—

1. The assessable rental for 1914 was £1409.
2. The assessment levied was £211 17s.

3. The water bailiffs employed are 5 in number—4 during close season, and 1 during the whole year.
 4. Particulars as to prosecutions instituted are briefly as follow :—A lessee of salmon fishings in the sea was convicted of a contravention of Section 7 of The Salmon Fisheries (Scotland) Act, 1862, Section 24 of The Salmon Fisheries (Scotland) Act, 1868, and the bye-law contained in Schedule D. annexed to the last mentioned Act, but no penalty or expenses imposed.
- The case decided that “ jumpers ” were stake nets.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect.—None.
2. Are the bye-laws observed in every case ?—Fairly well observed.
3. Fish passes built or in prospect :—None.

Pollutions—

1. The existing pollutions are :—Ellon Burgh sewage.
2. Remedial measures :—None.

The Salmon Disease—

1. Disease made its appearance this year in the month of November 1913, and reached its height in February.
The river was free of diseased fish in April.
2. The number of diseased fish taken from the river and destroyed was 155, all kelts.

The Spawning Season—

1. Fish were first noticed spawning on 12th November 1913.
2. The greatest number spawned from 1st January to 15th January.
3. Spawning ceased about first week of February.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as very favourable.

Smolts—

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1914 was very good.

REPORT FROM UGIE DISTRICT.

Take of Fish—

1. The number of salmon and grilse :—
 - (a) By fixed engines in the sea—1622. Average weight, 13½ lb.
 - (b) By sweep net in tidal or fresh waters—Grilse, 1024; average weight, 4½ lb.
 - (c) By rod and line—20 salmon and grilse, and 1000 to 1500 finnoch and sea trout.
2. The take of salmon was a little better, grilse a little below, and sea trout a little better than season 1913.
3. Sea trout :—
 - (a) The number taken was 908 (by sweep net).
 - (b) As compared with previous years about the usual.
4. The weight of the heaviest salmon taken during the season was 45 lb.
The particulars of time and place of capture are :—By fixed engine at the mouth of the River Ugie in the month of August.

Protection—

1. The assessable rental for 1914 was £789.
2. The assessment levied was 1s. per £.
3. The water bailiffs employed are 5 in number—1 regular man, who has the assistance of 4 gamekeepers of the Pitfour Trustees when on their beats.
4. Particulars as to prosecutions instituted are briefly as follows :—None.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None. The existing fish passes afford a free and natural passage to fish at all times.

Pollutions—

None.

The Salmon Disease—

1. Disease made its appearance this year in the month of December 1913, and reached its height in January 1914.
The river was free of diseased fish in the latter end of May 1914.
2. The number of diseased fish taken from the river and destroyed was 21, all kelts—12 males and 9 females.

The Spawning Season—

1. Fish were first noticed spawning on 26th November 1913.
2. The greatest number spawned between 1st December and 25th December 1913.
3. Spawning ceased end of December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as specially good. There was a very large run of spawning fish in December, and the river was excellent for them.

Smolts—

1. Smolts were noticed to be migrating seawards in the month of April 1914.
2. As a smolt year 1914 was quite up to the average of former years.

REPORT FROM DEVERON DISTRICT.

Take of Fish—

1. The estimated catch in relation to that of former years was :—
 - (a) By fixed engine—An average fishing.
 - (b) By rod and line—Below average.
2. Sea trout :—
The number taken as compared with previous years was below average.
3. The weight of the heaviest salmon taken during the season was 42 lb.
The particulars of time and place of capture are :—8th July, in bag-net off Whitehills.

Protection—

1. The assessable rental for 1914 was £3379 6s.
2. The assessment levied was £450 10s.
3. The water bailiffs employed are 10 in number.

Obstructions to the Passage of Fish—

Are the bye-laws observed in every case ?—Yes.

Pollutions—

The existing pollutions are :—Refuse and sewage from 8 distilleries and the towns of Huntly, Keith, and Turriff.

The Salmon Disease—

1. Disease made its appearance this year in the month of December, and reached its height in February.
The river was free of diseased fish in May.
2. The number of diseased fish taken from the river and destroyed was 433, all kelts—382 males and 51 females.

The Spawning Season—

1. Fish were first noticed spawning on 16th October.
2. The greatest number spawned during November and December.
3. Spawning ceased middle of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as one of the best for several years.

Smolts—

1. Smolts were noticed to be migrating seawards in middle of April.
2. As a smolt year 1914 was good.

*REPORT FROM FINDHORN DISTRICT.***Take of Fish—**

1. The number of salmon and grilse :—
 - (a) By fixed engines in the sea—15,054.
 - (b) By sweep net in tidal or fresh waters—4929.
 - (c) By rod and line—Not available.
2. The estimated catch in relation to that of former years was :—
 - (a) By fixed engine—About average.
 - (b) By sweep net—About the average.
 - (c) By rod and line—Below the average.
3. Sea trout :—
 - (a) The number taken was 2982.
 - (b) As compared with previous years—Below the average.
4. The weight of the heaviest salmon taken during the season was 42½ lb.
The particulars of time and place of capture are :—1st August, Shillahead Station; by bag-net

Protection—

1. The assessable rental for 1914 was £3907.
2. The assessment levied was £340.
3. The water bailiffs employed are 3 in number yearly, 12 extra during spawning season.
4. Particulars as to prosecutions instituted are briefly as follows :—None.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect.—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.

Pollutions—

The existing pollutions are :—None.

The Salmon Disease—

1. Disease made its appearance this year in the month of April, and reached its height in May.
The river was free of diseased fish in July.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts	21	15
Clean	14	10

The Spawning Season—

1. Fish were first noticed spawning on 13th October.
2. The greatest number spawned between 20th October and 20th November.
3. Spawning ceased—upper reaches 27th November; lower reaches about the end of January 1915.

4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as very good in the upper reaches. On the lower reaches the spawning was much hindered by ice on the fords. The number of fish was below the average.

Smolts—

1. Smolts were noticed to be migrating seawards in April, May, and June.
2. As a smolt year 1914 was very good.

REPORT FROM NAIRN DISTRICT.

Take of Fish—

1. The estimated catch in relation to that of former years was :—
 - (a) By fixed engine—Above average.
 - (b) By sweep net—Average.
 - (c) By rod and line—Average.
2. Sea trout :—
 - (a) The number taken was 2000.
 - (b) As compared with previous years—Above average.
3. The weight of the heaviest salmon taken during the season was 37 lb. The particulars of time and place of capture are :—In August, at West Old Bar.

Protection—

1. The assessable rental for 1914 was £1205 8s.
2. The assessment levied was 1s. 6d. per £.
3. The water bailiffs employed are 2 in number, 1 being permanent, and 1 being employed during the close season.
4. No prosecutions instituted.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect.—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.

Pollutions—

None.

The Salmon Disease—

There was no disease.

The Spawning Season—

1. Fish were first noticed spawning as follows :—Sea trout were first seen on 15th October, and salmon on 5th November.
2. The greatest number spawned between 15th November and 10th December.
3. Spawning ceased about the middle of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as an average. There were plenty of breeding fish in the river this season. The state of water was half flood.

Smolts—

1. Smolts were noticed to be migrating seawards about 12th April. They disappeared from the river on 10th June.
2. As a smolt year 1914 was very good.

REPORT FROM NESS DISTRICT.

Take of Fish—

1. The number of salmon and grilse :—(a) By fixed engine in the sea—Not available.
(b) By rod and line—Loch Ness, Fort-Augustus, 390 salmon and grilse ; River Oich, 100 salmon and grilse ; River Morriston,

18 salmon and grilse ; River Ness, 146 salmon and grilse—
Total 654.

This does not include the Foyers or Glen Urquhart fish, as there are no numbers given for these parts of Loch Ness.

2. Sea trout :—

(b) As compared with previous years the numbers of sea trout were much below the average for the season, both in tidal waters and in the river, and as for the exact number caught by rod and line in the River Ness it is impossible to get this as the majority of anglers keep no record of their catch of sea trout.

3. The weight of the heaviest salmon taken during the season was 28 lb.

The particulars of time and place of capture are :—Caught by rod and line at Dochfour in the month of March.

Protection—

1. The assessable rental for 1914 was £3925 10s.
2. The assessment levied was 2s. per £.
3. The water bailiffs employed are 3 in number.
4. Particulars as to prosecutions instituted are briefly as follow :—The prosecutions were 2. One man was fined 5s. for killing brown trout during the annual close time, and the other man was fined £2 for taking 11 sea trout from the river by means of illegal net.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—There is 1 fish pass built on the River Morriston within recent years.

Pollutions—

None.

The Salmon Disease—

1. Disease made its appearance this year in the month of January, and reached its height in February.

The river was free of diseased fish in March.

2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts	15	3
Clean	1	—

The Spawning Season—

1. Fish were first noticed spawning on 28th October.
2. The greatest number spawned in November.
3. Spawning not ceased when report prepared.
4. The number of salmon and grilse seen on the spawning beds was about the average. The fish were kept from spawning rather longer this year on account of the low state of the rivers, and latterly the rivers have been in very high flood, and will probably do a good deal of damage to spawning beds.

Smolts—

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1914 was average.

REPORT FROM CONON DISTRICT.

Take of Fish—

1. The number of salmon and grilse :—

<p>(a) By fixed engines in the sea (b) By sweep net in tidal or fresh waters (c) By rod and line—about 680.</p>	}	<p>It is impossible to obtain accurate information from lessees of net salmon fishings.</p>
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2. The estimated catch in relation to that of former years was :—

(a) By fixed engine)
(b) By sweep net) Salmon an average—grilse below the average.
(c) By rod and line)

3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.
By Fixed Engine .	..	3	12	13	10	20	30	12	..
By Sweep Net .	..	2	14	13	11	20	29	11	..
By Rod and Line .	2	15	18	15	8	10	15	7	6

4. Sea trout :—

The number taken was above the average.

5. The weight of the heaviest salmon taken during the season was about 30 lb., several being taken at that weight.

The particulars of place of capture are :—Easter Ross Bag-net Fisheries.

Protection—

1. The assessable rental for 1914 was £3267.
2. The assessment levied was 1s. per £.
3. The water bailiffs employed are 2 in number, 1 permanent inspector and 1 temporary watcher. Gamekeepers on the estates interested are authorised to act as water bailiffs.
4. Particulars as to prosecutions instituted are briefly as follow :—The local manager in charge of the Castlecraig Fishery, occupied by the Moray Firth Salmon Fisheries Company, Limited, was prosecuted for failure to observe the weekly close time by failing to remove the leaders of three bag nets on Saturday, 2nd May 1914. The trial took place at Cromarty on 4th June 1914, and the accused pleaded guilty to the charge. A fine of 2s. 6d. for each net—together 7s. 6d.—was imposed, with expenses of £1 1s. in addition. The circumstances showed that the offence was practically a technical one, and the fine was thus purely nominal.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—No change.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—No change.

Pollutions—

None.

The Salmon Disease—

None.

The Spawning Season—

1. Fish were first noticed spawning about the middle of October.
2. The greatest number spawned between 4th November and 20th November.
3. Spawning ceased about the middle of December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as a little below the average. The river was in flood during the whole spawning season.

Smolts—

1. Smolts were noticed to be migrating seawards in April and May.
2. As a smolt year 1914 was fairly good.

Mr. Nesbitt, who has acted as Superintendent in this District for nearly thirty years, and who has served the Conon Board with great acceptance, died early in 1915.—W. L. C.

REPORT FROM KYLE OF SUTHERLAND DISTRICT.**Take of Fish—**

1. The estimated catch in relation to that of former years was :—
 - (a) By fixed engine—Above the average.
 - (b) By sweep net—About the average.
 - (c) By rod and line—Above the average.
2. The weight of the heaviest salmon taken during the season was 35 lb.
The particulars of time and place of capture are :—End of July, at Bonar Bridge.

Protection—

1. The assessable rental for 1914 was £4485 7s. 6d.
2. The assessment levied was £355 1s. 10d.
3. The water bailiffs employed are 9 in number.
4. No prosecutions instituted.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—So far as possible.
3. Fish passes built or in prospect :—None.

Pollutions—

None.

The Salmon Disease—

1. Disease made its appearance this year in the month of August, and reached its height in November.
The river was free of diseased fish in December.
2. The number of diseased fish taken from the river and destroyed was 136, all kelts—95 males and 41 females.

The Spawning Season—

1. Fish were first noticed spawning on 20th September.
2. The greatest number spawned from 10th October till 25th November.
3. Spawning ceased on 15th December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as above the average.

Smolts—

1. Smolts were noticed to be migrating seawards in May.
2. As a smolt year 1914 was above the average.

REPORT FROM COUNTY OF SUTHERLAND—EAST COAST DISTRICT (RIVERS HELMSDALE, BRORA, AND FLEET).**Take of Fish—**

1. The number of salmon, grilse, and trout :—
 - (a) By sweep net in tidal or fresh waters—1122 salmon, 275 grilse, and 1190 trout.
 - (b) By rod and line—2427 salmon, grilse, and trout.

2. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

		Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.
By Sweep Net	{ Salmon . .	..	39·6	31·8	16·9	5·3	3·9	2·5	..
	{ Grilse . .	..	..	..	·4	57·1	35·6	6·9	..
	{ Trout . .	..	..	..	6·1	77·8	15·4	·7	..
By Rod and Line . .		7·4	25·0	14·7	16·9	8·0	14·5	6·6	6·9

3. The weight of the heaviest salmon taken during the season was 36 lb.
The particulars of place of capture are :—River Helmsdale, by rod and line.

Protection—

1. The assessable rental for 1914 was £2160, but angling mostly let with shootings, and value not fully apportioned.
2. The water bailiffs employed are 4 in number, in addition to keepers who assist in watching.

Pollutions—

None.

The Spawning Season—

1. Fish were first noticed spawning on 10th November.
2. The greatest number spawned between 11th and 20th November.
3. Spawning ceased at end of November.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as good.

Smolts—

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1914 was good.

REPORT FROM DUNBEATH DISTRICT.

Take of Fish—

1. The estimated catch in relation to that of former years was :—
By fixed engine—Below average.
2. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—By fixed engine, May, 3 ; June, 20 ; July, 75 ; August, 2.
3. Sea trout :—
(a) The number taken was 6.
(b) As compared with previous years below average.
4. The weight of the heaviest salmon taken during the season was 25 lb.
The particulars of time and place of capture are :—28 July, Ulbster.

Protection—

1. The assessable rental for 1914 was £432.
2. The assessment levied was 1s. 5d. per £.
3. One water bailiff is employed.
4. There were no prosecutions.

REPORT FROM WICK DISTRICT.**Take of Fish—**

1. The estimated catch in relation to that of former years was :—
By fixed engine—Slightly below average.
2. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—By fixed engine—February, 2 ; March, 7 ; April, 10 ; May, 15 ; June, 25 ; July, 30 ; August, 6.
3. Sea trout :—
(a) The number taken was about 1 dozen.
(b) As compared with previous years—Average.
4. The weight of the heaviest salmon taken during the season was 29 lb.
The particulars of time and place of capture are :—13th July, at Wick.

Protection—

1. The assessable rental for 1914 was £516.
2. The assessment levied was 1s. 7d. per £.
3. One water bailiff is employed.
4. Particulars as to prosecutions instituted are briefly as follow :—Two lads were prosecuted in September for taking salmon in Wick Bay, and were put under probation for six months, being their first offence.

The Spawning Season—

1. Fish were first noticed spawning on 1st November.
2. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as average.

Smolts—

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1914 was average.

REPORT FROM COUNTY OF SUTHERLAND—NORTH COAST DISTRICT (RIVERS HALLADALE, NAVER, BORGIE, KINLOCH, AND HOPE).**Take of Fish—**

1. The number of salmon, grilse, and sea trout :— Salmon. Grilse. Sea Trout.
(a) By fixed engines in the sea . . . 463 1778 9
(b) By sweep net in tidal or fresh waters 961 1572 2
(c) By rod and line . . . 543 69 437
2. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

		Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.
By Fixed Engine	{ Salmon .	..	..	16·2	21·6	44·1	17·9	·2	..
	{ Grilse .	..	..	·05	1·05	67·3	31·1	·5	..
	{ Trout .	..	..	11·0	..	66·7	22·3	..	..
By Sweep Net	{ Salmon .	..	..	..	35·7	49·1	15·2	..	..
	{ Grilse .	..	..	..	1·0	64·0	35·0	..	..
	{ Trout .	..	..	..	..	100·0	..	..	..
By Rod and Line	{ Salmon .	8·5	25·1	27·3	25·1	·5·2	7·5	·5	·8
	{ Grilse .	..	..	..	..	30·0	50·5	14·5	5·0
	{ Trout .	..	..	..	1·6	2·9	78·0	16·6	·9

3. The weight of the heaviest salmon taken during the season was 38 lb.
The particulars of time and place of capture are :—On 26th May, by sweep net at mouth of Halladale River.

Protection—

1. The assessable rental for 1914 was £1485 per Valuation Roll, but angling mostly let with shootings and not apportioned at full value.
2. The water bailiffs employed are 4 in number, in addition to keepers who assist in the watching.

The Spawning Season—

1. Fish were first noticed spawning on 10th October.
2. The greatest number spawned between 9th and 20th November.
3. Spawning ceased on 16th December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as good.

Smolts—

1. Smolts were noticed to be migrating seawards in April, May, and June.
2. As a smolt year 1914 was very good.

REPORT FROM DURNESS (GRUDIE OR DIONARD) DISTRICT.

Take of Fish—

1. The number of salmon and grilse :—
By rod and line—About 75.
2. The estimated catch in relation to that of former years was :—
By rod and line—Below an average.
3. Sea trout :—
(a) The number taken was 640.
(b) As compared with previous years—under an average.
4. The weight of the heaviest salmon taken during the season was 12 lb.
The particulars of time and place of capture are :—August—Dionard.

Protection—

No assessment levied.

Pollutions—

None.

The Salmon Disease—

None.

The Spawning Season—

1. Fish were first noticed spawning in first week of October.
2. The greatest number spawned in second week of October.
3. Spawning ceased on 25th October.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as fair.

Smolts—

1. Smolts were noticed to be migrating seawards in the beginning of April.
2. As a smolt year 1914 was fairly good.

REPORT FROM COUNTY OF SUTHERLAND—WEST COAST DISTRICT (RIVERS LAXFORD AND INCHARD).

Take of Fish—

1. The number of salmon, grilse, and trout :—

	Salmon	Grilse.	Trout.
(a) By fixed engines in the sea	139	744	20
(b) By rod and line	42		519

2. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.
By Fixed Engine {	Salmon .	..	..	..	15·9	43·8	39·6	·7
	Grilse .	..	..	..	·13	37·4	61·8	·67
	Trout .	..	..	..	..	35·0	65·0	..
By Rod and Line {	Salmon }	..	..	..	..	25·9	32·2	41·9
	Grilse }	..	..	..	..	16·8	38·6	44·6
	Trout }	..	..	..	..	..	..	..

3. The weight of the heaviest salmon taken during the season was 22½ lb.
The particulars of place of capture are :—Caught on River Inchard, by rod and line.

The Spawning Season—

1. Fish were first noticed spawning in first week of November.
2. The greatest number spawned between 15th November and 20th December.
3. Spawning ceased at end of December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as fair.

Smolts—

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1914 was fair.

REPORT FROM INVER AND KIRKAIG DISTRICTS.

Take of Fish—

1. The number of salmon and grilse :—
(a) By fixed engines in the sea—3473.
(b) By rod and line—60.
2. The catch by bag net is below the average.
3. Sea trout :—
The number taken was 103, as compared with 164 last year.
4. The weight of the heaviest salmon taken during the season was 38 lb.
The particulars of time and place of capture are :—June, Culkein, Stoer.

Protection—

1. The assessable rental for 1914 was £280.
2. The assessment levied was £120 15s.
3. The water bailiffs employed are 2 in number.

Obstructions to the Passage of Fish—

Are the bye-laws observed in every case ?—Yes.

Pollutions—

None.

The Salmon Disease—

None.

REPORT FROM BALGAY DISTRICT.

Take of Fish—

1. The number of salmon and grilse :—None.
2. Sea trout :—

The number taken was small in comparison with former years owing to waters not having been fished this year.

Protection—

1. All expenses are paid by Mr. C. J. Murray and the Earl of Lovelace.
2. One water bailiff is employed and the keepers assist.
3. Particulars as to prosecutions instituted are briefly as follows:—None.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect.—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.

The Spawning Season—

1. Fish were first noticed spawning on 5th October.
2. The greatest number spawned in October.
3. Spawning ceased at end of November.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as fairly good.

Smolts—

As a smolt year 1914 was fairly good.

REPORT FROM AWE DISTRICT.

Take of Fish—

1. The estimated catch in relation to that of former years was :—
 - (a) By fixed engine—Below the average.
 - (b) By sweep net—Below the average.
 - (c) By rod and line—Above the average.
2. Sea trout :—Slight improvement in numbers of large sea trout ; good improvement in young sea trout.
3. The weight of the heaviest salmon taken during the season was 35 lb.
The particulars of place of capture are :—Rod and line, at Dalmally, waters of the River Awe.

Protection—

1. The assessable rental for 1914 was £1721 15s. 8d.
2. The assessment levied was 1s. 9d. per £1.
3. One water bailiff is employed.
4. No prosecutions instituted.

Pollutions—

None.

The Spawning Season—

1. Heavy state of river prevented observation of commencement of spawning.
2. The greatest number spawned about end of November.
3. Spawning ceased about the end of December.
4. The numbers of breeding fish could not be observed owing to the heavy state of river.

Smolts—

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1914 was fairly good.

REPORT FROM FEOCHAN DISTRICT.

Take of Fish—

1. No net at head of Loch Feochan.
The catch by rod and line was better than that of 1913.
2. Sea trout :—
 - (a) The number taken was better than last season.
 - (b) As compared with previous years not nearly up to average.

Protection—

1. The assessable rental for 1914 was £178.
2. The assessment levied was 1s. 9d. per £.
3. One water bailiff is employed.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—1 dam on River Nell.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—One should be put right on River Nell.

The Spawning Season—

1. Owing to heavy floods date of commencement of spawning cannot be given.
2. The greatest number spawned in November.
3. Spawning ceased in December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as the worst for the last 16 years owing to the heavy floods.

Smolts—

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1914 was fairly good.

REPORT FROM CLYDE AND LEVEN DISTRICT, INCLUDING LOCH LOMOND (REPORT FROM SECRETARY, LOCH LOMOND ANGLING ASSOCIATION).

Take of Fish—

1. The number of salmon and grilse :—
 - (a) By sweep net in tidal waters of Clyde estuary—231.
 - (b) By rod and line—in Loch Lomond, exclusive of tributary streams—approximately 90.

Note :—There are no fixed engines in the district. Estuary netting began 10th June, and terminated 25th July, netting being conducted on 34 days. Saturday partly and Monday wholly were added to the weekly close time.

2. The estimated catch in relation to that of former years was :—
 - (a) By sweep net in Clyde estuary—A fair average.
 - (b) By rod and line—Rather below the average of recent years in the Loch Lomond basin.
3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

		Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.
By Sweep Net	Salmon	..	..	..	..	50	50	..	..
	and Grilse	..	..	..	..	44	56	..	..
By Rod and Line	Sea Trout	..	..	..	..	..	..	..	..
	Salmon	..	..	12	34	34	5	10	5
By Rod and Line	and Grilse	..	..	5	3	8	15	36	33
	Sea Trout	..	..	..	..	..	..	..	..

4. Sea trout :—

The number taken was (1) in Clyde nets, 2907; (2) in Loch Lomond, so far as reported, 311.

As showing the almost unaccountable fluctuation in both net and rod results, the past four seasons may be contrasted thus :—

	Nets.	Rods.
1911	3468	472
1912	2101	1464
1913	1754	668
1914	2907	311

The years 1911, 1913, and 1914 were seasons of prolonged drought, and fish could not ascend the Leven, but the nets did not gain any marked advantage. Even in the spawning season of 1914 the redds were well stocked with sea trout which must have ascended late.

5. The weight of the heaviest salmon taken during the season was 26 lb.

The particulars of time and place of capture are :—On 18th April in Loch Lomond.

Protection—

1. The water bailiffs employed vary in number from 2 or 3 to 7 or 8, according to the season of the year.
2. Particulars as to prosecutions instituted are briefly as follow :—It was not found necessary to institute prosecutions against any persons, though several individuals were warned for attempting to gaff “sick” fish in the River Leven.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.

Pollutions—

1. The existing pollutions in the River Leven are growing in intensity.
2. Remedial measures :—None as regards the Leven.

The Salmon Disease—

There was no disease in the district so far as observed in 1914.

The Spawning Season—

1. Fish were first noticed spawning—
 - (a) Sea trout on 8th October in the River Truim.
 - (b) Salmon early in November in the River Endrick.
2. The greatest number spawned—
 - (a) Sea trout in November.
 - (b) Salmon in December.
3. Spawning ceased generally in December, although some late running salmon were observed spawning in the River Leven at Bonhill on 14th January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as having been average for sea trout and below the average for salmon : as regards numbers. The conditions were in every way favourable for the fish when on the redds.

Smolts—

1. Smolts were noticed to be migrating seawards—
 - (a) Sea trout as early as March, but the main body descended at the end of April.
 - (b) Salmon smolts descended in greatest numbers in June.
2. As a smolt year 1914 was an average year.

REPORT FROM AYR DISTRICT.**Take of Fish—**

1. The number of salmon and grilse :—
By rod and line—81.
 2. The estimated catch in relation to that of former years was below the average.
 3. Sea trout :—The number taken was very much below the average.
 4. The weight of the heaviest salmon taken during the season was 29½ lb. The average weight of the salmon caught throughout the season was 13 lb.
- The particulars of time and place of capture are :—On Craigie stretch in August.
- The largest catch was in October.
- The first run of salmon was in the last week of April and the first week of May. The number was small. The largest run of fish was in the last week of July and the first week of August. The first salmon was caught on 5th May on Ayr Corporation stretch.

Protection—

1. The assessable rental for 1914 was £442 5s.
2. The assessment levied was 8s. 6d. per £.
3. The water bailiffs employed are 2 in number permanently, and 1 temporarily (in autumn).
4. Particulars as to prosecutions instituted are briefly as follow :—Three prosecutions were instituted. In 2 of these, where the charge was the having possession of a gaff for the purpose of catching salmon, convictions were obtained, fines of 10s. and 5s. respectively being imposed. In the third case, where the charge was salmon poaching, proceedings were abandoned at the request of the proprietor on whose lands the trespass took place.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.

Pollutions—

None.

The Salmon Disease—

None. About half a dozen dead salmon were found.

The Spawning Season—

1. Fish were first noticed spawning in the middle of November.
2. The greatest number spawned in December and January.
3. Spawning practically ceased about the middle of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as very good.

Smolts—

1. Smolts were noticed to be migrating seawards in April, May, and June.
2. As a smolt year 1914 was exceptionally good.
3. Grilse were running in the first week of September.

Changes in Office-Bearers of District Board—

The triennial election of members of the District Board was held on 29th September 1914, when the following were elected, viz. :—

1. *Upper Proprietors*.—Mr. James Bell of Enterkine, and the Trustees of the late Mr. John Meikle of Berskimming.
2. *Lower Proprietors*.—The Duke of Portland, and the Marquess of Ailsa, *Chairman*.—Mr. R. A. Oswald of Auchincruive.

REPORT FROM DOON DISTRICT.

Take of Fish—

1. The number of salmon and grilse :—
 - (a) By fixed engines in the sea—Not ascertained.
 - (b) By sweep net in tidal or fresh waters—Not ascertained.
 - (c) By rod and line—209. This is below the average.
2. Sea trout :—

The number taken was 265.
3. The weight of the heaviest salmon taken during the season was 19½ lb.
The fish was caught at Cassillis.

Protection—

1. The assessable rental for 1914 was £502.
2. The assessment levied was 8s. per £.
3. The water bailiffs employed are 2 in number.
4. Particulars as to prosecutions instituted are briefly as follow :—There were 3 prosecutions altogether. In 1 of these 2 men were charged with salmon poaching, having taken 2 salmon out of a tributary of the River Doon. Both were convicted and fined £1 each. In the second case, a man was charged with taking an unclean salmon out of the River Doon, and was fined £1 1s. In the third case, action was taken against a miller on the River Doon for failing to keep a sluice at the mill closed. Proceedings were dropped on defender giving a written undertaking to obey the regulation in future, and on paying expenses.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes, with the exception of certain hecks, which are at present being seen to.
3. Fish passes built or in prospect :—None.

Pollutions—

1. The existing pollutions are :—Skeldon Mills.
2. Remedial measures :—An action has been raised in the Sheriff Court at Ayr against the tenants of the mills, Miller & Porteous, Ltd., to have them interdicted from polluting the river. The Sheriff made a remit to Mr. Wm. A. Tait, C.E., Edinburgh, to report on the best means of preventing the pollution, and the defenders have undertaken to carry out the scheme recommended by Mr. Tait.

The Salmon Disease—

None.

The Spawning Season—

1. Fish were first noticed spawning on 15th October.
2. The greatest number spawned about 20th November.
3. Spawning ceased at the end of December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as excellent.

Smolts—

1. Smolts were noticed to be migrating seawards in May.
2. As a smolt year 1914 was good.

REPORT FROM GIRVAN DISTRICT.

Take of Fish—

1. The number of salmon, grilse, and sea trout :—
 - (a) By fixed engines in the sea—847 salmon, 220 grilse, and about 300 sea trout.

(b) By rod and line—16 salmon, 2 grilse, and about 80 sea trout and whiting.

Grilse were very scarce during the season 1914.

2. The weight of the heaviest salmon taken during the season was 31 lb.

The particulars of method and time of capture are :—In a bag net in July.

Protection—

1. The assessable rental for 1914 was £524 12s.
2. The assessment levied was £26 4s. 6d.
3. One water bailiff is employed.
4. There were no prosecutions in 1914.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.

Pollutions—

The extended Maybole sewage scheme has now been completed at a cost of over £3000. The effluent is in the meantime innocuous and should remain so provided the system is properly controlled and managed.

A new source of pollution hitherto unsuspected has come to light through the wholesale destruction of fish life in a small tributary stream of the River Girvan, known as Pinwhapple Burn.

This occurred on 11th August, and traced to its source, was found to have been caused by the discharge of the poisonous fluid contained in a sheep dipper into the burn at a point distant about 3 miles from the river.

Hundreds of salmon and sea trout fry were found dead in the burn on the following day, and so far as could be ascertained the whole of the fish in the stream below the point of discharge were destroyed.

Sheep dippers are, of course, no new feature, but they are now much more regularly used than formerly, owing to the recent Sheep Dipping Order.

In the case above referred to, the Board intimated an action for interdict and damages, but no proceedings followed owing to the explanation of the owner of the dipper that he was unaware of the danger, and to his offer to do anything required to prevent the possibility of the poisonous matter reaching the burn in future, and to remove the dipper to a safe distance if required.

In the meantime he has only been called upon to close up the outlet in the concrete sole of the dipper, and to come under an obligation to empty it in future by baling the contents into a suitable vessel and conveying them to be discharged in a pit at a distance, prepared for the purpose ; as the Board have under consideration the question of dealing with the whole of the dippers in the watershed of the river.

As will be seen from the accompanying detailed list there are no fewer than 22 of these dippers under suspicion.

A definite method of dealing with them has not yet been resolved upon, as there are difficulties in the way, but it seems that it would be no great hardship for any of the owners to convey the poisonous liquid to a distance by means of the large barrels which are in use at most farms for liquid manures.

The quantity of liquid used in this district in a dipper varies from 80 to 300 gallons, and the capacity of the barrels above referred to is about 80 gallons.

While it is doubtless convenient it is by no means necessary that dippers should be situated on the banks of a stream. The water can easily be carted, and in many cases where portable dippers are used this is regularly done.

Pinwhapple Burn used to be famous for its yellow trout, but as almost none were found among the dead fish it looks as if the fish indigenous to the stream had been destroyed by former discharges which had escaped observation.

The Salmon Disease—

None.

The Spawning Season—

1. Fish were first noticed spawning about the middle of November.
2. Many fish still on the redds at 11th January 1915.
3. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as quite up to the average.

Smolts—

1. Smolts were noticed to be migrating seawards in the beginning of April.
2. As a smolt year 1914 was average.

LIST OF DIPPERS IN THE WATERSHED OF THE RIVER GIRVAN.

Farm.	Description of Dipper.	Where Discharged.	Notes.
Blair.	More than one mile from river, 40 yards from Ladyburn.	On surface of land.	Only dipper between Kilkerran and Cross-hill.
Fairlaw.	Two wooden dippers, safe distance from river.	On surface of land.	One at Ballochbeatten and the other at Tallyminnoch.
Knockdon	Wooden dipper situated on Loch Bradon Hill.	On surface of land.	Only means of reaching river by sheep drains.
Genoch.	Concrete dipper, on hill 1 mile from river.	On surface of land.	—
Craig.	Concrete dipper.	On surface.	Close to small burn flowing into the river.
Largs.	Wooden dipper situated at Culdoch.	On surface.	No possibility of waste reaching river.
Bennan.	Wooden dipper beside Dyke Burn, 100 yards from river.	Into Dyke Burn.	Also Dyke dipper beside farm. No possibility of waste reaching river.
Robstone.	Concrete dipper with plug in bottom, 20 yards from river.	Discharged into main drain from house.	Contains 300 gallons. Tenant claims that he is careful only to discharge it in time of flood.
Knockgerran	Dipper with plug in bottom, 4 yards from Pinwhapple Burn.	Discharged into burn through drain tile.	Contains 80 gallons. This is the dipper which caused the destruction of fish.
Cairnhill.	Brick and cement dipper with plug in bottom.	In direction of river by drain.	Dipper is about 120 yards from river.
Maxwelton	Brick and cement dipper, 100 yards from river.	Discharged on surface by baling.	—
Knockgerran	Cement dipper, 3 yards from Pinwhapple Burn, with plug in bottom.	Discharged into the burn.	The dipper is about 3 miles from the River Girvan.
Trolorg } Camregan }	700 yards from nearest burn.	Baled on surface.	—
Dalamford.	Brick and cement built, 20 yards from Delamford Burn.	Baled out on surface.	No drainage.

Farm.	Description of Dipper.	Where Discharged.	Notes.
Dobbington	Brick and cement built, 700 yards from burn.	Drained on surface.	—
Whitehill .	Brick and cement, 57 yards from burn.	Surface drained.	—
Billnbeg .	Brick and cement, 500 yards from river.	Baled on surface.	No drainage.
Woodside .	250 yards from river.	Baled on surface.	
High Craig-head .	Metal dipper set in concrete, 500 yards from nearest stream.	Discharged in open.	
Blair. .	Fireclay dipper, half-mile from nearest burn.	Drained into wood.	—
Farthing .	Brick and cement dipper, 20 yards from small ditch 2 miles from river.	Baled out on surface.	—
Glenton .	Wooden dipper, 4 yards from Glenton Burn, 1½ miles from river.	Baled out on surface.	There is a slope from dipper to burn.

*REPORT FROM STINCHAR DISTRICT.***Take of Fish—**

1. The number of salmon and grilse :—
By rod and line—17.
2. The estimated catch in relation to that of former years was :—Below the average.
3. The weight of the heaviest salmon taken during the season was 28 lb.

Protection—

1. The assessable rental for 1914 was £400.
2. The assessment levied was £14 6s. 8d.
3. There is 1 water bailiff employed.

The Salmon Disease—

Disease made its appearance this year in the month of August.

The Spawning Season—

1. Fish were first noticed spawning on 22nd November.
2. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as poor.

Smolts—

1. Smolts were noticed to be migrating seawards in May.
2. As a smolt year 1914 was about an average.

*REPORT FROM CREE DISTRICT.***Take of Fish—**

1. The number of salmon and grilse :—
 - (a) By fixed engines in the sea—Greatly below an average.
 - (b) By sweep net in tidal or fresh waters—Very poor.
 - (c) By rod and line—75. Much below average. There was an absence of grilse.

2. Sea trout :—

(a) The number taken was fair and good for herling.

(b) As compared with previous years more herling in rivers than most years.

3. The weight of the heaviest salmon taken during the season was 21 lb. by rod.

The particulars of time and place of capture are :—Cunninghame's Ford, Cree. In April.

Protection—

1. The assessable rental for 1914 was £882 10s.

2. The assessment levied was 1s. per £.

3. The water bailiffs employed are 3 in number, 1 being engaged all the year round.

4. No prosecutions instituted.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.

2. Are the bye-laws observed in every case ?—Yes.

3. Fish passes built or in prospect :—None.

Pollutions—

The existing pollutions are :—The sewage of Newton-Stewart is emptied into river, and may do some harm for a time in very dry summers, and last summer was very dry.

The Salmon Disease—

None.

The Spawning Season—

1. Fish were first noticed spawning at beginning of November.

2. The greatest number spawned in November.

3. Spawning ceased—Not known.

4. The number of breeding fish was small, but the water was favourable for spawning.

Smolts—

1. Smolts were noticed to be migrating seawards in middle of May.

2. As a smolt year 1914 was very good.

REPORT FROM DEE (SOLWAY) DISTRICT.

Take of Fish—

1. The number of salmon and grilse :—

(a) By fixed engines in the sea—Unknown.

(b) By sweep net in tidal or fresh waters—Unknown.

(c) By rod and line—About 24 fish. Much below average.

2. Sea trout :—

(a) The number taken is unknown.

(b) As compared with previous years is much better.

Protection—

1. The assessable rental for 1914 was £1466 5s.

2. The assessment levied was 5 per cent.

3. One water bailiff is employed.

4. No prosecutions instituted.

Obstructions to the Passage of Fish—

Dam dykes disused, built, or in prospect :—None.

Pollutions—

None.

The Salmon Disease—

None.

The Spawning Season—

1. Fish were first noticed spawning on 3rd November 1914.
2. The greatest number spawned between 3rd and 20th November 1914.
3. Still spawning (Christmas 1914).
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as very far below the average.

Smolts—

1. Smolts were noticed to be migrating seawards in the last week in April.
2. As a smolt year 1914 was the best for many years.

*REPORT FROM NITH DISTRICT.***Take of Fish—**

1. The number of salmon and grilse :—
 - (a) By fixed engines in the sea—Cannot be ascertained.
 - (b) By sweep net in tidal or fresh waters—Not known, but number exceptionally small.
 - (c) By rod and line—8 salmon. Worst on record.
2. Sea trout :—
The number taken was below last year's catch.
3. The weight of the heaviest salmon taken during the season was 26 lb.
The particulars of time and place of capture are :—On 18th November, by rod and line on Cowhill, Holywood water.

Protection—

1. The assessable rental for 1914-15 was £629 6s. 4d.
2. The assessment levied was 5s. per £.
3. One water bailiff is employed, with about 20 gamekeepers sworn in as special watchers.
4. Particulars as to prosecutions instituted are briefly as follow :—During the year 3 persons were convicted for contraventions of different Sections of the Salmon Fisheries Act, and fines imposed varying from £1 10s. or 7 days' imprisonment to £3 16s. 3d. or 20 days' imprisonment.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.

Pollutions—

1. The existing pollutions are :—The effluents, containing dye, from the mills at Maxwelltown, Dumfries, still unconnected with the sewage system. Also coal washings from the pits in the upper reaches of the River Nith in Dumfriesshire and Ayrshire.
2. Remedial measures :—None.

The Salmon Disease—

None.

The Spawning Season—

1. Fish were first noticed spawning on 10th January.
2. The greatest number spawned from 15th to 23rd January.
3. Spawning ceased at end of March.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as very poor.

Smolts—

1. Smolts were noticed to be migrating seawards at end of May.
2. As a smolt year 1914 was below the average.

REPORT FROM ANNAN DISTRICT.

Take of Fish—

1. The number of salmon and grilse cannot be given, but greatly below average.
2. Sea trout :—
The number taken cannot be given.
3. The weight of the heaviest salmon taken during the season was 40 lb.
The particulars of time and place of capture are :—July 23, at Newlin Fishery.

Protection—

1. The assessable rental for 1914 was £2273.
2. The assessment levied was £454 12s. (*i.e.* 4s. in per £).
3. The water bailiffs employed are 4 in number.
4. No prosecutions instituted.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.

Pollutions—

1. The existing pollutions are :—
 - (1) Wet Carbonizing Co. Ltd.—pollution of the Lochar.
 - (2) Moffat Gas Works—pollution of the River Annan.
2. Remedial measures :—The Medical Officer of Health for the County is urging remedial measures, and is watching in both cases.

The Salmon Disease—

1. Disease made its appearance this year in the month of January, and reached its height in February.
The river was free of diseased fish in May.
2. The number of diseased fish taken from the river and destroyed was 4, all kelts—3 males and 1 female.

The Spawning Season—

1. Fish were first noticed spawning on 19th December 1913.
2. The greatest number spawned in January.
3. Spawning ceased in March.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as good.

Smolts—

1. Smolts were noticed to be migrating seawards on 4th May.
2. As a smolt year 1914 was good.

APPENDIX P.

RATEABLE VALUE OF SALMON FISHERIES, IN DISTRICTS WHERE BOARDS HAVE BEEN FORMED, FOR THE YEARS 1881 TO 1914 INCLUSIVE.

YEAR.	Alness.		Annan.		Awe.		Ayr.		Balgay.		Bervie.		Conon.		Cree.		Dee (Aberdeen).		Dee (Solway).		
	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	
Average for 5 years, 1881 to 1885 .	£ ..	£ ..	£ 1,729	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ 546	£ ..	£ 10,127	£ ..	£ 1,201	£ ..	
Average for 5 years, 1886 to 1890 .	£ ..	£ ..	£ 2,022	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ ..	£ 532	£ ..	£ 11,773	£ ..	£ 1,568	£ ..	
1891 .	£ ..	2,112	£ ..	701	£ ..	586	£ ..	40	£ ..	586	£ ..	2,560	£ ..	530	£ ..	11,968	£ ..	1,463	£ ..	1,463	£ ..
1892 .	£ ..	2,049	£ ..	718	£ ..	586	£ ..	40	£ ..	586	£ ..	2,556	£ ..	530	£ ..	12,336	£ ..	1,463	£ ..	1,463	£ ..
1893 .	£ ..	2,165	£ ..	723	£ ..	536	£ ..	40	£ ..	536	£ ..	2,975	£ ..	544	£ ..	13,911	£ ..	1,463	£ ..	1,463	£ ..
1894 .	£ 579	2,778	£ ..	723	£ ..	536	£ ..	40	£ ..	536	£ ..	2,944	£ ..	554	£ ..	14,489	£ ..	1,463	£ ..	1,463	£ ..
1895 .	£ 584	2,763	£ 2,389	896	£ 752	566	£ ..	36	£ ..	566	£ ..	2,540	£ 2,755	554	£ 542	14,593	£ 13,461	1,633	£ 1,497	1,633	£ 1,497
1896 .	£ 584	3,182	£ ..	896	£ ..	1,071	£ ..	20	£ ..	1,071	£ ..	2,455	£ ..	571	£ ..	15,820	£ ..	1,603	£ ..	1,603	£ ..
1897 .	£ 614	3,182	£ ..	878	£ ..	1,071	£ ..	20	£ ..	1,071	£ ..	2,590	£ ..	571	£ ..	16,176	£ ..	1,633	£ ..	1,633	£ ..
1898 .	£ 608	3,182	£ ..	878	£ 100	871	£ ..	20	£ ..	871	£ ..	2,554	£ ..	696	£ ..	17,468	£ ..	1,603	£ ..	1,603	£ ..
1899 .	£ 600	3,182	£ ..	870	£ 110	871	£ ..	42	£ ..	871	£ ..	2,554	£ ..	696	£ ..	17,427	£ ..	1,603	£ ..	1,603	£ ..
1900 .	£ 610	3,182	£ 3,182	870	£ 110	871	£ 951	20	£ 24	871	£ 951	2,504	£ 2,521	696	£ 646	18,989	£ 17,176	1,603	£ 1,609	1,603	£ 1,609
1901 .	£ 606	3,196	£ ..	936	£ 110	910	£ ..	20	£ ..	910	£ ..	3,142	£ ..	696	£ ..	19,419	£ ..	1,596	£ ..	1,596	£ ..
1902 .	£ 601	3,197	£ ..	936	£ 110	910	£ ..	20	£ ..	910	£ ..	3,141	£ ..	696	£ ..	19,455	£ ..	1,557	£ ..	1,557	£ ..
1903 .	£ 617	3,197	£ ..	1,052	£ 110	910	£ ..	40	£ ..	910	£ ..	3,108	£ 3,108	691	£ ..	18,393	£ ..	1,556	£ ..	1,556	£ ..
1904 .	£ 617	3,197	£ ..	1,129	£ 110	911	£ ..	40	£ ..	911	£ ..	2,975	£ ..	695	£ ..	19,079	£ ..	1,556	£ ..	1,556	£ ..
1905 .	£ 735	3,256	£ 3,269	1,208	£ 1,052	911	£ 110	40	£ 32	911	£ 910	3,047	£ 3,082	728	£ 700	19,333	£ 19,133	1,570	£ 1,553	1,570	£ 1,553
1906 .	£ 531	3,006	£ ..	1,306	£ 110	911	£ ..	40	£ ..	911	£ ..	3,047	£ ..	868	£ ..	19,068	£ ..	1,570	£ ..	1,570	£ ..
1907 .	£ 455	2,947	£ ..	1,467	£ 125	911	£ ..	40	£ ..	911	£ ..	3,000	£ ..	933	£ ..	18,899	£ ..	1,231	£ ..	1,231	£ ..
1908 .	£ 451	2,917	£ ..	1,564	£ 160	1,096	£ ..	40	£ ..	1,096	£ ..	2,968	£ ..	863	£ ..	18,336	£ ..	1,231	£ ..	1,231	£ ..
1909 .	£ 451	2,917	£ ..	1,481	£ 125	1,096	£ ..	40	£ ..	1,096	£ ..	2,914	£ ..	853	£ ..	17,884	£ ..	1,231	£ ..	1,231	£ ..
1910 .	£ 451	2,917	£ 2,941	1,519	£ 184	1,093	£ 1,022	40	£ 40	1,093	£ 1,022	2,789	£ 2,944	853	£ 874	17,799	£ 18,397	1,231	£ 1,299	1,231	£ 1,299
*1911 .	£ 451	2,917	£ ..	1,519	£ 184	1,095	£ ..	£ ..	£ ..	1,095	£ ..	2,788	£ ..	852	£ ..	18,005	£ ..	1,231	£ ..	1,231	£ ..
*1912 .	£ 462	2,981	£ ..	1,518	£ 447	1,095	£ ..	£ ..	£ ..	1,095	£ ..	3,153	£ ..	943	£ ..	17,990	£ ..	1,445	£ ..	1,445	£ ..
*1913 .	£ 473	3,027	£ ..	1,492	£ 447	1,095	£ ..	£ ..	£ ..	1,095	£ ..	3,183	£ ..	882	£ ..	18,153	£ ..	1,445	£ ..	1,445	£ ..
*1914 .	£ ..	2,273	£ ..	1,721	£ 442	1,095	£ ..	£ ..	£ ..	1,095	£ ..	3,257	£ ..	882	£ ..	18,784	£ ..	1,466	£ ..	1,466	£ ..

* Assessed Rentals.

APPENDIX P.—continued.

RATEABLE VALUE OF SALMON FISHERIES, IN DISTRICTS WHERE BOARDS HAVE BEEN FORMED, FOR THE YEARS 1881 TO 1914 INCLUSIVE.

Year.	Deveron.		Don.		Doon.		Esk (North).		Esk (South).		Findhorn.		Forth.		Girvan.		Kyle of Sutherland.		Lochy.		Nairn.		
	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	
Average for 5 years, 1881 to 1885 . . .	£ 2,477	£ 3,247	£ . .	£ . .	£ . .	£ . .	£ 6,211	£ 2,431	£ . .	£ 3,617	£ 3,868	£ 571	£ . .	£ 2,496	£ 1,658	£ . .	£ . .	£ . .	£ . .	£ . .	£ . .	£ . .	£ . .
Average for 5 years, 1886 to 1890 . . .	£ 1,807	£ 3,806	£ . .	£ . .	£ . .	£ . .	£ 6,673	£ 3,055	£ . .	£ 3,570	£ 4,261	£ 547	£ . .	£ 2,598	£ 1,719	£ . .	£ . .	£ . .	£ . .	£ . .	£ . .	£ . .	£ . .
1891 . . .	2,047	3,646	..	..	..	..	6,476	3,012	..	3,541	3,890	542	..	2,640	1,895	..	1,543	..	..	..	..	..	..
1892 . . .	2,071	3,623	..	..	..	..	6,519	3,012	..	3,501	3,704	542	..	2,665	1,961	..	1,343	..	..	..	..	..	..
1893 . . .	2,073	3,904	..	..	..	..	6,609	3,012	..	3,491	3,765	542	..	2,613	1,961	..	1,343	..	..	..	..	..	..
1894 . . .	2,143	3,743	..	..	..	..	6,812	3,002	..	3,501	3,806	554	..	2,658	2,122	..	1,343	..	..	..	..	..	..
1895 . . .	2,383	3,583	..	..	..	..	6,812	3,149	3,037	3,501	3,766	544	..	2,611	2,122	2,012	1,136	..	..	..	..	..	..
1896 . . .	2,360	3,390	..	..	..	..	6,519	3,149	..	3,446	3,617	500	..	2,634	2,094	..	1,136	..	..	..	..	..	..
1897 . . .	2,469	3,383	..	..	..	..	6,540	3,149	..	3,436	3,616	524	..	2,731	2,115	..	1,135	..	..	..	..	..	..
1898 . . .	2,658	3,374	..	..	..	..	6,579	3,507	..	3,436	3,738	524	..	2,771	2,115	..	1,135	..	..	..	..	..	..
1899 . . .	2,979	3,430	..	..	..	..	6,523	3,424	..	3,436	3,792	524	..	2,838	2,020	..	1,136	..	..	..	..	..	..
1900 . . .	3,078	3,336	..	..	..	..	6,414	3,492	3,342	3,511	3,801	544	..	2,845	2,338	2,130	1,136	..	..	..	..	..	..
1901 . . .	3,186	3,691	473	473	473	473	6,510	3,492	..	3,527	3,925	514	..	2,890	2,092	..	1,136	..	..	..	..	..	..
1902 . . .	3,048	3,700	473	473	473	473	6,466	3,567	..	3,527	3,928	528	..	3,132	2,306	..	1,139	..	..	..	..	..	..
1903 . . .	3,105	3,646	486	486	486	486	6,494	3,552	..	3,587	3,731	553	..	2,523	2,300	..	1,139	..	..	..	..	..	..
1904 . . .	3,387	3,863	498	498	498	498	6,494	3,565	..	3,607	3,510	544	..	3,517	2,238	..	1,141	..	..	..	..	..	..
1905 . . .	3,369	4,153	498	498	485	485	6,489	3,590	3,553	3,661	3,581	537	..	3,515	2,231	2,413	1,219	..	..	..	..	..	..
1906 . . .	3,425	4,173	498	498	498	498	6,486	3,600	..	3,681	3,274	544	..	3,458	2,231	..	1,204	..	..	..	..	..	..
1907 . . .	3,381	3,946	513	513	513	513	6,474	3,674	..	3,661	3,491	534	..	3,353	2,231	..	1,205	..	..	..	..	..	..
1908 . . .	2,707	3,843	511	511	511	511	6,614	3,403	..	3,661	3,569	534	..	4,315	1,900	..	1,205	..	..	..	..	..	..
1909 . . .	3,193	3,503	508	508	508	508	7,621	3,697	..	3,697	3,684	534	..	4,524	2,238	..	1,205	..	..	..	..	..	..
1910 . . .	3,340	3,209	499	499	506	506	7,618	3,464	3,513	3,362	3,612	536	..	4,511	2,227	2,295	1,205	..	..	..	..	..	..
*1911 . . .	3,340	3,381	499	499	499	499	7,617	3,464	..	3,677	3,756	533	..	4,510	2,310	..	1,205	..	..	..	..	..	..
*1912 . . .	3,359	3,381	499	499	499	499	7,597	3,601	..	3,847	3,756	543	..	4,511	2,269	..	1,205	..	..	..	..	..	..
*1913 . . .	3,559	3,593	502	502	502	502	7,597	3,555	..	3,847	3,703	543	..	4,520	2,269	..	1,205	..	..	..	..	..	..
*1914 . . .	3,379	3,998	502	502	502	502	7,745	3,526	..	3,907	3,796	524	..	4,485	..	..	1,205	..	..	..	..	..	..

* Assessed Rentals.

APPENDIX P.—continued.

RATEABLE VALUE OF SALMON FISHERIES, IN DISTRICTS WHERE BOARDS HAVE BEEN FORMED, FOR THE YEARS 1881 TO 1914 INCLUSIVE.

YEAR.	Ness.		Nith.		Skye.		Spey.		Stinchar.		Tay.		Thurso.		Tweed.		Ugie.		Ythan.	
	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.
Average for 5 years, 1881 to 1885.	£ 3,093	£ 520	£ 520	£ 520	£ 520	£ 520	£ 9,165	£ 19,596	£ 19,596	£ 19,596	£ 19,596	£ 19,596	£ 19,596	£ 19,596	£ 19,596	£ 19,596	£ 335	£ 746	£ 746	£ 746
Average for 5 years, 1886 to 1890.	£ 3,203	£ 464	£ 464	£ 464	£ 464	£ 464	£ 10,207	£ 20,504	£ 20,504	£ 20,504	£ 20,504	£ 20,504	£ 20,504	£ 20,504	£ 20,504	£ 20,504	£ 314	£ 884	£ 884	£ 884
1891.	3,266	443	443	443	443	443	9,669	17,820	17,820	17,820	17,820	17,820	17,820	17,820	17,820	17,820	358	931	931	931
1892.	3,254	423	423	423	423	423	9,687	17,227	17,227	17,227	17,227	17,227	17,227	17,227	17,227	17,227	358	1,004	1,004	1,004
1893.	3,253	756	756	756	756	756	9,687	19,008	19,008	19,008	19,008	19,008	19,008	19,008	19,008	19,008	358	1,004	1,004	1,004
1894.	3,468	775	775	775	775	775	9,316	21,763	21,763	21,763	21,763	21,763	21,763	21,763	21,763	21,763	356	1,004	1,004	1,004
1895.	3,209	771	771	771	771	771	9,588	19,587	19,587	19,587	19,587	19,587	19,587	19,587	19,587	19,587	402	1,024	1,024	1,024
1896.	3,085	815	815	815	815	815	8,671	17,091	17,091	17,091	17,091	17,091	17,091	17,091	17,091	17,091	503	1,024	1,024	1,024
1897.	3,503	780	780	780	780	780	9,638	17,211	17,211	17,211	17,211	17,211	17,211	17,211	17,211	17,211	504	1,294	1,294	1,294
1898.	3,667	781	781	781	781	781	10,634	17,905	17,905	17,905	17,905	17,905	17,905	17,905	17,905	17,905	508	1,299	1,299	1,299
1899.	3,510	775	775	775	775	775	11,033	21,048	21,048	21,048	21,048	21,048	21,048	21,048	21,048	21,048	768	1,299	1,299	1,299
1900.	3,647	676	676	676	676	676	10,122	22,482	22,482	22,482	22,482	22,482	22,482	22,482	22,482	22,482	845	1,317	1,317	1,317
1901.	3,582	654	654	654	654	654	8,608	22,549	22,549	22,549	22,549	22,549	22,549	22,549	22,549	22,549	839	1,398	1,398	1,398
1902.	3,636	545	545	545	545	545	8,052	22,608	22,608	22,608	22,608	22,608	22,608	22,608	22,608	22,608	839	1,398	1,398	1,398
1903.	3,516	554	554	554	554	554	8,147	22,648	22,648	22,648	22,648	22,648	22,648	22,648	22,648	22,648	812	1,389	1,389	1,389
1904.	3,404	584	584	584	584	584	7,397	22,902	22,902	22,902	22,902	22,902	22,902	22,902	22,902	22,902	779	1,359	1,359	1,359
1905.	3,646	583	583	583	583	583	8,365	23,069	23,069	23,069	23,069	23,069	23,069	23,069	23,069	23,069	778	1,369	1,369	1,369
1906.	3,503	619	619	619	619	619	8,741	22,676	22,676	22,676	22,676	22,676	22,676	22,676	22,676	22,676	779	1,354	1,354	1,354
1907.	3,792	511	511	511	511	511	9,135	23,123	23,123	23,123	23,123	23,123	23,123	23,123	23,123	23,123	809	1,352	1,352	1,352
1908.	3,533	507	507	507	507	507	9,244	23,489	23,489	23,489	23,489	23,489	23,489	23,489	23,489	23,489	757	1,352	1,352	1,352
1909.	3,680	509	509	509	509	509	9,397	23,716	23,716	23,716	23,716	23,716	23,716	23,716	23,716	23,716	789	1,360	1,360	1,360
1910.	3,680	531	531	531	531	531	9,131	23,874	23,874	23,874	23,874	23,874	23,874	23,874	23,874	23,874	789	1,399	1,399	1,399
1911.	3,679	531	531	531	531	531	9,129	23,873	23,873	23,873	23,873	23,873	23,873	23,873	23,873	23,873	789	1,399	1,399	1,399
1912.	3,835	521	521	521	521	521	10,304	23,586	23,586	23,586	23,586	23,586	23,586	23,586	23,586	23,586	784	1,384	1,384	1,384
1913.	3,832	552	552	552	552	552	11,228	23,584	23,584	23,584	23,584	23,584	23,584	23,584	23,584	23,584	789	1,384	1,384	1,384
1914.	3,925	629	629	629	629	629	..	24,399	24,399	24,399	24,399	24,399	24,399	24,399	24,399	24,399	789	1,409	1,409	1,409

* Assessed Rentals.

APPENDIX Q.

ANNUAL CLOSE TIMES APPLICABLE TO THE SALMON RIVERS IN SCOTLAND.

N.B.—Observe that, in the following List, the days fixing the commencement and termination of the Annual Close Time for Net-fishing and for Rod-fishing, respectively, are in all cases inclusive, as in the case of the Add, the first river in the List.

Name of River.	Annual Close Time for Net-fishing.	Annual Close Time for Rod-fishing.
Add	From Sept. 1 to Feb. 15, both days inclusive.	From Nov. 1 to Feb. 15, both days inclusive.
Aline	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Alness	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Annan	From Sept. 10 to Feb. 24.	From Nov. 16 to Feb. 24.
Applecross	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Arnisdale (<i>Loch Hourn</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Awe	From Aug. 27 to Feb. 10.	From Oct. 16 to Feb. 10.
Aylort (<i>Kinloch</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Ayr	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Baa and Goladoir	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Badachro and Kerry (<i>Gair-loch</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Balgay and Shieldag	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Beaully	From Aug. 27 to Feb. 10.	From Oct. 16 to Feb. 10.
Berriedale	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Bervie	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Bladenoch	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Broom	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Brora	From Aug. 27 to Feb. 10.	From Oct. 1 to Jan. 10.
Carradale (<i>in Cantyre</i>)	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Carron	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Clayburn, Finnisbay, Aven- nangeren, Strathgravat, North Lacastile, Scalladale, and Mawrig (<i>East Harris</i>)	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Clyde and Leven	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Conon	From Aug. 27 to Feb. 10.	From Oct. 16 to Jan. 25.
Cree	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Creed or Stornoway, and Laxay (<i>Island of Lewis</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Creran (<i>Loch Creran</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Croe and Shiel (<i>Loch Duich</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Dee (<i>Aberdeenshire</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Dee (<i>Kirkcudbrightshire</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Deveron	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Don	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Doon	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Drummachloy or Glenmore (<i>Isle of Bute</i>)	From Sept. 1 to Feb. 15.	From Oct. 16 to Feb. 15.
Dunbeath	From Aug. 27 to Feb. 10.	From Oct. 16 to Feb. 10.
Earn	From Aug. 21 to Feb. 4.	From Nov. 1 to Jan. 31.
Eckraig	From Sept. 1 to Feb. 15.	From Nov. 1 to Feb. 15.
Esk, North	From Sept. 1 to Feb. 15.	From Nov. 1 to Feb. 15.
Esk, South	From Sept. 1 to Feb. 15.	From Nov. 1 to Feb. 15.
Ewe	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.

Name of River.	Annual Close Time for Net-fishing.	Annual Close Time for Rod-fishing.
Fincastle, Meaveg, Ballanachist, South Lacastile, Borve, and Obb (<i>West Harris</i>)	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Findhorn	From Aug. 27 to Feb. 10.	From Oct. 11 to Feb. 10.
Fleet (<i>Sutherlandshire</i>)	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Fleet (<i>Kirkcudbrightshire</i>)	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Forss	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 24.
Forth	From Aug. 27 to Feb. 10.	From Oct. 16 to Jan. 14.
Fyne, Shira, and Aray (<i>Loch Fyne</i>)	From Sept. 1 to Feb. 15.	From Nov. 1 to Feb. 15.
Giryan	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Glenelg	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Gour	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Greiss, Laxdale, or Thunga.	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Grudie or Dionard	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Gruinard and Little Gruinard	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Halladale, Strathy, Naver, and Borgia	From Aug. 27 to Feb. 10.	From Oct. 1 to Jan. 11.
Helmsdale	From Aug. 27 to Feb. 10.	From Oct. 1 to Jan. 10.
Hope and Polla or Strathbeg	From Aug. 27 to Feb. 10.	From Oct. 1 to Jan. 11.
Howmore	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Inchard	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Inner (<i>in Jura</i>)	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Inver	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Iorsa (<i>in Arran</i>)	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Irvine and Garnock	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Kannaird	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Kilchoan or Inverie (<i>Loch Nevis</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Kinloch (<i>Kyle of Tongue</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Kirkaig	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Kishorn	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Kyle of Sutherland	From Aug. 27 to Feb. 10.	From Oct. 1 to Jan. 10.
Laggan and Sorn (<i>Island of Islay</i>)	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Laxford	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Leven	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Little Loch Broom	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Lochy	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Loch Duich	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Loch Luig	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Loch Roag	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Lossie	From Aug. 27 to Feb. 14.	From Oct. 16 to Feb. 10.
Luce	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 10.
Lussa (<i>Island of Mull</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Moidart	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Morar	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Mullanageren, Horasary, and Lochnaciste (<i>North Uist</i>)	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Nairn	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Naver and Borgia, <i>see</i> Halladale.		
Nell, Feochan, and Euchar.	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Ness	From Aug. 27 to Feb. 10.	From Oct. 16 to Feb. 1.
Nith	From Sept. 10 to Feb. 24.	From Dec. 1 to Feb. 24.
Orkney Islands (<i>River from Loch of Stenness, &c.</i>)	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Ormsary (<i>Loch Killisport</i>), Loch Head, and Stornoway (<i>Mull of Cantyre</i>)	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Pennygowan or Glenforsa, and Aros	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.

Name of River.	Annual Close Time for Net-fishing.	Annual Close Time for Rod-fishing.
Resort	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Ruel	From Sept. 1 to Feb. 15.	From Nov. 1 to Feb. 15.
Sanda	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Scaddle	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Shetland Islands (<i>River of Sandwater, &c.</i>) . .	From Sept. 10 to Feb. 24.	From Nov. 16 to Jan. 31.
Shiel (<i>Loch Shiel</i>) . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Sligachan, Broadford, and Portree (<i>Isle of Skye</i>) .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Snizort, Orley, Oze, and Drynoch (<i>Isle of Skye</i>) .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Spey	From Aug. 27 to Feb. 10.	From Oct. 16 to Feb. 10.
Stinchar	From Sept. 10 to Feb. 24.	From Nov. 15 to Feb. 24.
Tay (except Earn) . .	From Aug. 21 to Feb. 4.	From Oct. 16 to Jan. 14.
Thurso	From Aug. 27 to Feb. 10.	From Oct. 6 to Jan. 10.
Torridon, Balgay, and Shieldag	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Tweed	From Sept. 15 to Feb. 14.	From Dec. 1 to Jan. 31.
Ugie	From Sept. 10 to Feb. 24.	From Nov. 16 to Feb. 24.
Ullapool (<i>Loch Broom</i>) .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Urr	From Sept. 10 to Feb. 24.	From Nov. 30 to Feb. 24.
Wick	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Ythan	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 10.

APPENDIX R.

LIST OF CHAIRMEN AND CLERKS OF SALMON FISHERY
DISTRICT BOARDS IN SCOTLAND.

DISTRICT.	Name and Address of Chairman.	Name and Address of Clerk.
Alness . . .	Andrew Mackenzie, Esq., Dalmore House, Alness.	William J. Duncan, Solicitor, Dingwall.
Annan . . .	A. Johnstone Douglas, Esq., Comlongan Castle, Ruthwell.	J. C. R. Macdonald, 84 Irish Street, Dumfries.
Awe . . .	The Duke of Argyll, Inveraray Castle, Inveraray.	Alex. MacArthur, Solicitor, Oban.
Ayr . . .	Richard A. Oswald, Esq., of Auchincruive, Ayr.	C. Young, W.S., County Buildings, Ayr.
Balgay . . .	C. R. Manners, Esq., C.E., 12 Lombard Street, Inverness.	Duncan Shaw, W.S., 15 High Street, Inverness.
Bervie . . .	David Scott Porteous, Esq., of Lauriston, as Mandatory of the Commissioners of Woods and Forests.	W. C. Walls, Solicitor, Montrose.
Broom . . .	W. Ewing-Gilmour, Esq., of Inverlael, per A. W. G. Aitken, Esq., S.S.C., Edinburgh.	W. R. T. Middleton, Solicitor, Dingwall.
Carron (W. Ross)	Baron von Schroder of Attadale.	Arthur H. Duncan, Solicitor, Dingwall.
Conon . . .	John Little Mounsey, Esq., W.S., 5 Thistle Street, Edinburgh, Commissioner for Col. J. A. F. H. Stewart Mackenzie of Seaforth.	W. R. T. Middleton, Solicitor, Dingwall.
Cree . . .	The Earl of Galloway, Cumloden, Newton-Stewart.	A. B. Matthews, Solicitor, Newton-Stewart.
Dee (Aberdeen)	The Lord Provost of Aberdeen.	Alex. Duffus, Advocate, Aberdeen.
Dee (Solway) .	J. Wilkinson, Esq., Mandatory for Capt. Hope, R.N., of St. Mary's Isle.	W. Nicholson, Jun., Solicitor, Kirkcudbright.
Deveron . . .	Wm. MacIntosh, Esq., Fife Lodge, Banff.	James Morrison, Solicitor, Banff.
Don . . .	George Davidson, Esq., Wellwood, Aberdeen.	Alex. Duffus, Advocate, Aberdeen.
Doon . . .	Marquis of Ailsa, Culzean Castle, Maybole.	C. Young, W.S., County Buildings, Ayr.
Dunbeath . .	Mandatory of Commissioners of Woods, etc., London.	D. W. Georgeson, Solicitor, Wick.
Esk (North) .	W. Douglas Johnston, Esq. (as Mandatory for Proprietors of Morphy Fishings), Montrose.	J. R. Findlay, Solicitor, Montrose.
Esk (South) .	William Douglas Johnston, Esq., Montrose.	D. S. Campbell, Solicitor, Montrose.
Feochan . . .	The Marquis of Breadalbane, Taymouth Castle, Aberfeldy.	Alex. MacArthur, Solicitor, Oban.
Findhorn . .	Sir R. C. Munro Ferguson, Bart., of Novar, per J. J. Meiklejohn, Esq., factor.	William Grant, National Bank Buildings, Forres.
Forth . . .	Mandatory of Commissioners of Woods, etc., London.	Henry Robb, 11 Barnton Street, Stirling.
Girvan . . .	John Campbell Kennedy, Esq., of Dunure.	T. Gerald Tait, Solicitor, Girvan.
Gruinard and Little Gruinard	Alfred N. G. Aitken, Esq., S.S.C., Edinburgh, Factor and Commissioner for Hugh Mackenzie, Esq., of Dundonnell.	W. R. T. Middleton, Solicitor, Dingwall.
Kyle of Sutherland	Sir Charles Lockhart Ross., Bart., of Balnagowan.	John McCrone, Solicitor, Dornoch.
Little Broom .	Alfred N. G. Aitken, Esq., S.S.C., Edinburgh, Factor and Commissioner for Hugh Mackenzie, Esq., of Dundonnell.	W. R. T. Middleton, Solicitor, Dingwall.

APPENDIX R.—(continued)—LIST OF CHAIRMEN AND CLERKS OF SALMON FISHERY DISTRICT BOARDS IN SCOTLAND.

DISTRICT.	Name and Address of Chairman.	Name and Address of Clerk.
Lochy . . .	Thomas Allison, Factor and Mandatory for the Trustees of the late Lord Abinger, Inverlochry Castle, Fort-William.	Duncan MacIachlan, Inverlochry T. R. Mackenzie, Solicitor, Elgin.
Nairn . . .	Brodie of Brodie, Brodie Castle, Forres.	H. T. Donaldson, Solicitor, Nairn.
Ness . . .	Captain E. C. Ellice of Glengarry, Fort-Augustus.	Anderson & Shaw, Solicitors, Inverness.
Nith . . .	John Henderson, Esq., Solicitor, Dumfries.	C. Steuart Phyn, Procurator-Fiscal, Dumfries.
Sligachan, Broadford, & Portree (Skye)	The Hon. Godfrey MacDonald, Portree.	Kenneth Macrae, Sheriff-Clerk, Portree.
Snizort, Orley, Oze, and Drynack (Skye)	The Hon. Godfrey MacDonald, Portree.	Kenneth Macrae, Sheriff-Clerk, Portree.
Spey . . .	The Duke of Richmond and Gordon, Gordon Castle, Fochabers, per George Muirhead, Esq., Commissioner.	T. R. Mackenzie and A. F. Macdonald, Solicitors, Elgin.
Stinchar . .	The Earl of Stair, Lochinch, Wigtownshire.	Stair M'Harrie, Rephad, Stranraer.
Tay . . .	The Earl of Moray, Kinfauns Castle, Perth.	Condie, Mackenzie, & Co., Solicitors, Perth.
Thurso . . .	Peter Keith, Esq., Mandatory for Archibald H. M. Sinclair, Esq., of Ulster.	David Keith-Murray, Solicitor, Thurso.
Torriden . .	C. R. Manners, Esq., C.E., 12 Lombard Street, Inverness.	Duncan Shaw, W.S., 15 High Street, Inverness.
Tweed (Police Committee of the Commissioners)	Sir Richard John Waldie-Griffith, Bart., of Hendersyde Park, Kelso.	David W. B. Tait, W.S., Kelso.
Ugie . . .	Lieut-Col. Ferguson, of Pitfour, Mintlaw.	Robert Gray, Solicitor, Peterhead.
Wick . . .	Mrs. Duff Dunbar, of Hempriggs, Ackergill Tower, Wick.	D. W. Georgeson, Solicitor, Wick.
Ythan . . .	Earl of Errol, Slains Castle, Aberdeen-shire.	D. M. A. Chalmers, Advocate, Aberdeen.

Note.—In addition to the districts specified above, the Duke of Sutherland is sole proprietor in the following river districts:—Helmsdale, Brora, and Fleet, on the east coast, Laxford, and Inchard, on the west coast, Halladale, Naver and Borge, and Kinloch, on the north coast (under the charge of his factor, Mr. John Morrison, Sutherland Estate Office, Golspie); Mr. J. W. Stewart is sole proprietor in the Inver and Kirkaig districts (in charge of his factor, Mr. Murdo Kerr, Assynt Estate Office, Lochinver); Mr. W. E. Gilmour of Rosehall is sole proprietor of the rivers Dionard, Polla, Strathy, and Armadale, and part owner, with the Duke of Sutherland, of the River Hope district (Mr. A. Gunn, Overseer, Durness, by Lairg, acts for Mr. Gilmour); Lord Lovat has practically sole rights of fishing in the river Beaully (under the charge of his factor, Mr. J. T. Garrioch, Estate Office, Beaully); The Countess of Cromarty is sole proprietrix of the district of the river Kannaird (under the charge of her factor, Mr. Alex. Taylor, Cromarty Estate Office, Kildary).

Fishery Board for Scotland,
Edinburgh, April 1915.



FISHERY BOARD FOR SCOTLAND—(continued).

SALMON FISHERIES, 1913.

- I. Salmon Research in 1913; Sea Netting Results. *With Chart.*
- II. Results of Salmon Marking in Rivers—ninth paper.
- III. The Spawning Mark on Salmon Scales: A Review. *With Plate.* (1914.) Price 9*d.*, post free 10*d.*

SALMON FISHERIES, 1914.

- I. Hatchery Results at Glen Etive.
- II. Further Notes on the percentage of previously-spawned Salmon. *With Plates.* (1914.) Price 9*d.*, post free 10*d.*
- III. Salmon Research in 1914; Sea Netting Results—second paper. *With 2 Charts.*
- IV. Study of the Salmon of the Moray Firth. (1915.) Price 1*s.*, post free 1*s.* 1½*d.*

SCIENTIFIC INVESTIGATIONS, 1909.

- I. Report on Larval and later Stages of certain Decapod Crustacea. *Illustrated.* (1911.) Price 2*s.* 3*d.*, post free 2*s.* 4*d.*

SCIENTIFIC INVESTIGATIONS, 1910.

- I. Reproductive Organs of *Sparus Centrodontus*, *Sparus Cantharus*, *Sebastes Marinus*, and *Sebastes Dactylopterus*; and on the Ripe Eggs and Larvae of *Sparus Centrodontus* (?) and *Sebastes Marinus*. (1911.) Price 1*s.* 6*d.*, post free 1*s.* 7½*d.*
- II. Retardation of the Development of the Ova of the Herring. (1911.) Price 4*d.*, post free 4½*d.*

SCIENTIFIC INVESTIGATIONS, 1911.

- I. Notes on some small Crustacea from the "Goldseeker" Collections. (1912.) Price 9*d.*, post free 9½*d.*
- II. Report on Diseases and Abnormalities in Fishes. *With Plates.* (1913.) Price 2*s.*, post free 2*s.* 1½*d.*

SCIENTIFIC INVESTIGATIONS, 1912.

- I. Eggs of certain Skates (*Raia*). *With Plates.* (1913.) Price 6*d.*, post free 7*d.*
- II. Distribution of the Larvae of the Eel in Scottish Waters. (1913.) Price 4*d.*, post free 4½*d.*

SCIENTIFIC INVESTIGATIONS, 1913.

- I. Aberdeen Trawling Statistics, 1912. Price 3*s.* 6*d.*, post free 3*s.* 8½*d.*
- II. Deep Sea Currents of the North Sea, as ascertained by means of Drift Bottles. Second Report. *With Charts.* Price 1*s.* 6*d.*, post free 1*s.* 7½*d.*
- III. Spawning Areas of Sand-eels in the North Sea. *With Chart.* (1914.) Price 4*d.*, post free 4½*d.*

SCIENTIFIC INVESTIGATIONS, 1914.

- I. European Races of Herrings. A Short *Résumé* of the Researches into the, and the Method of Investigations. (1914.) Price 6*d.*, post free 6½*d.*
- II. Distribution of Plaice Eggs in the Northern North Sea. *With Text Figures and Chart.* Price 2*s.*, post free 2*s.* 1½*d.*
- III. Aberdeen Fishery Statistics, 1913. *With Charts.* (1915.) Price 3*s.*, post free 3*s.* 2*d.*
- IV. Mean Sea Level and its Fluctuations. *With Charts.* (1915.) Price 1*s.*, post free 1*s.* 1*d.*

FISHERY BOARD FOR SCOTLAND—(continued).

FISHERY AND HYDROGRAPHICAL INVESTIGATIONS, 1908-1911.

FIFTH REPORT (NORTHERN AREA) ON FISHERY AND HYDROGRAPHICAL INVESTIGATIONS IN THE NORTH SEA AND ADJACENT WATERS, conducted in co-operation with the International Council for the Exploration of the Sea. 1908-1911.

I. Observations on the Plaice from the "Goldseeker" Experiments, and from the Statistics of the Aberdeen Market.

II. On the Distribution and Seasonal Abundance of Flatfishes (*Pleuronectidae*) in the North Sea, and the Fluctuations in their Abundance during the years 1901-1910.

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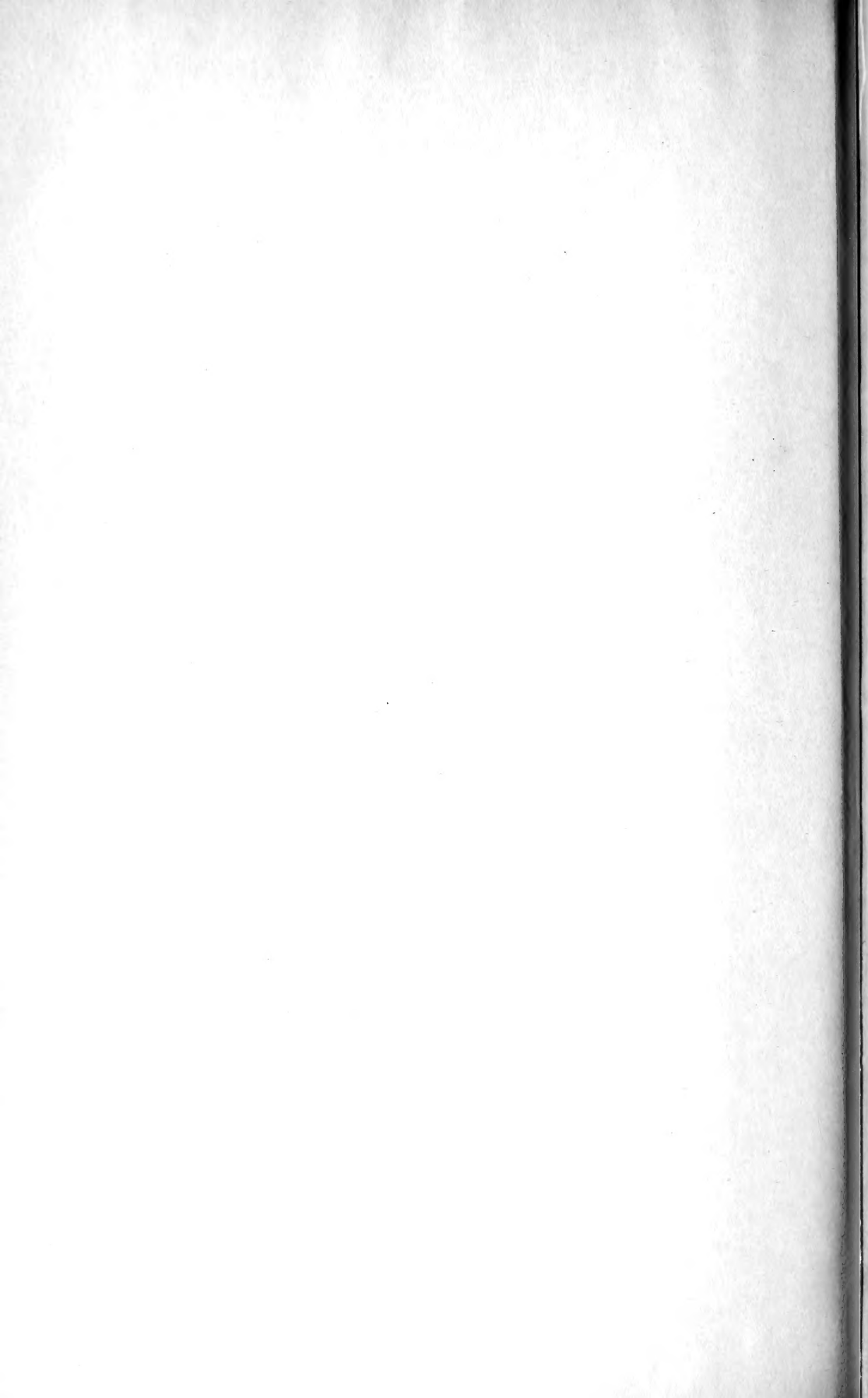
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